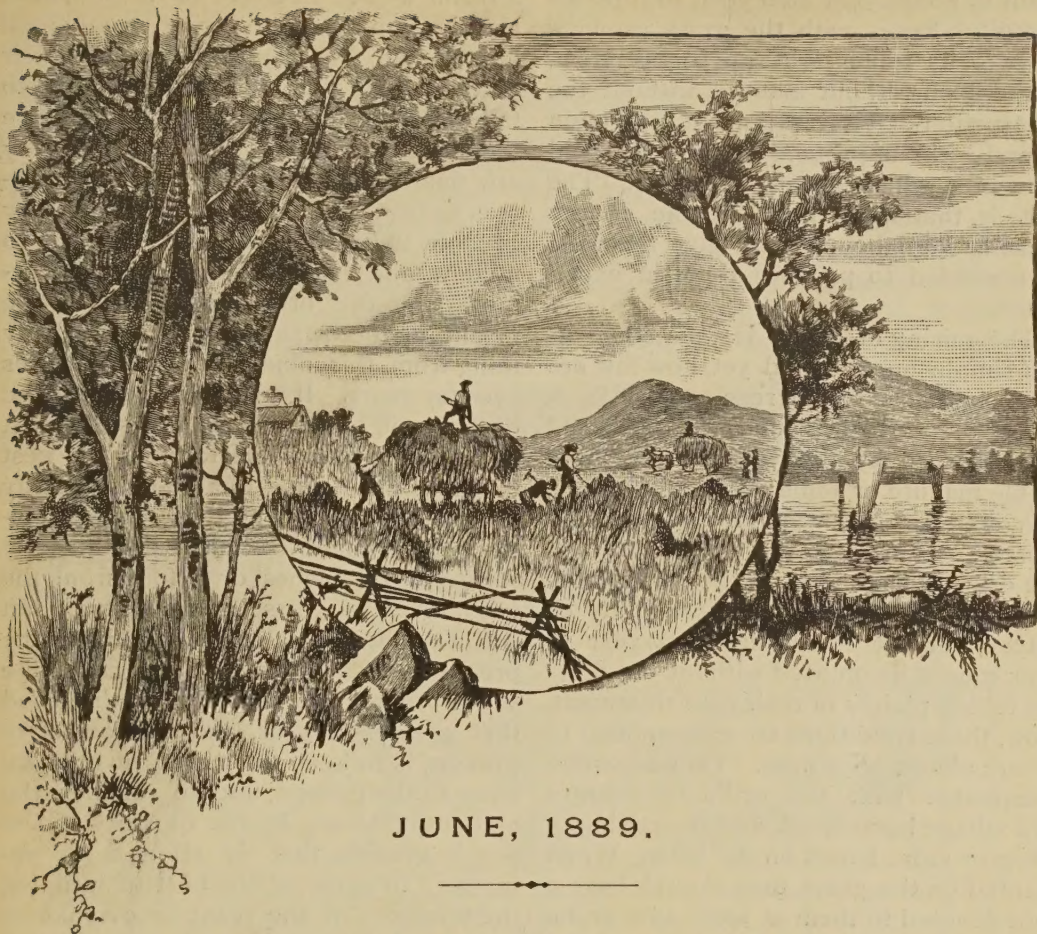


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JUNE, 1889.

GARDEN ROSES will always be the envy of most people, for the reason that nearly everywhere they fail to give the desired satisfaction. But it is not the fault of the Roses. We want a thing of the most beautiful form and sweetest fragrance, and the loveliest color the eye can rest upon merely for the sake of cutting it from a Rose bush. The expectation is unreasonable. To be sure, the originator of the variety went to work very carefully, he selected the finest plants after years of experience, he watched from day to day the unfolding of the blossoms, and skillfully removing the stamens before they had scattered any of their pollen he fertilized the flower with the golden grains from another beauty; then he repeated this operation again and again, always with the same varieties; he carefully tended these and other plants while the seed-pods formed and matured, gathered at least the few seeds each bore, and kept them in the most favorable conditions until it was time for them to germinate, tended the little plants, perhaps

hundreds of them, and at last was rewarded with one which proved a gem. It was propagated and sent out to the florists and the nurserymen, and they, in turn, with many cares increased their stocks and finally were able to offer it freely to the public. It is the beautiful, satiny Queen of Beauties. Everybody must have a plant of it. It is bought and set out in hundreds of yards. Obeying the instructions of the venders, many of the purchasers take some pains to give the plants a good situation, enriched soil, and sufficient hoeing and weeding to keep it growing thriftily, and perhaps are rewarded with a bloom the first summer. In most cases this is the extent of the good care it receives; after that, in most gardens, the plant must take care of itself. Perhaps the first winter it may receive a little protection, but, if so, it is given with the secret determination that it shall take care of itself in the future. A few real plant lovers, one here and there, form the exception to the picture here drawn. Why should one expect a

plant to go on, year after year, to produce beautiful Roses, with the grass growing all over its roots right up to the stem, left to itself without manure, without the destruction of the insects that prey upon it, and without protection from the cold of winter, which greatly affects it? The fact is, that while most people admire these flowers they will not give them the care needed to produce them in excellence.

The raising of Roses is a matter in itself simple enough, and yet how few are good and successful rose-growers! A bit of dry garden ground, well enriched and kept so by the yearly addition of stable manure or some artificial fertilizer, this is the foundation for raising good Roses. A low, wet place will not do; the original character of the soil makes but little difference, whether sandy or clayey, but the manuring from year to year cannot be omitted without the flowers telling plainly of their poor treatment. Now, these conditions are easy enough to secure almost anywhere. They are quite compatible with the ordinary country and village homestead, and the raising of a few or more Roses on the lawn. When planted on the grass they should have a spot devoted to them at least two and a half or three feet in diameter, and the grass should not be allowed to encroach upon it. This spot can be manured and forked over and be kept so that the roots can secure the needed nourishment from it. The amateur who intends to raise a considerable number of plants and varieties will have a bed properly prepared for them. Our present varieties of Roses, as already noticed, are the issues of generations of careful culture, and similar culture must be continued with them if we hope to have the best results. It is, then, simply a waste and a folly to plant out Roses to take care of themselves; but this folly we see repeated every year. Some whale oil soap and a garden syringe, or a small watering pot in default of this last, are all that are needed generally to combat the insects of this plant. As for winter protection, some straw, or some dry leaves and soil, will usually make them secure from the severest cold. Lastly, attention to pruning; this operation, like the pruning of the Grape vine, appears to be quite incomprehensible to many persons, and as

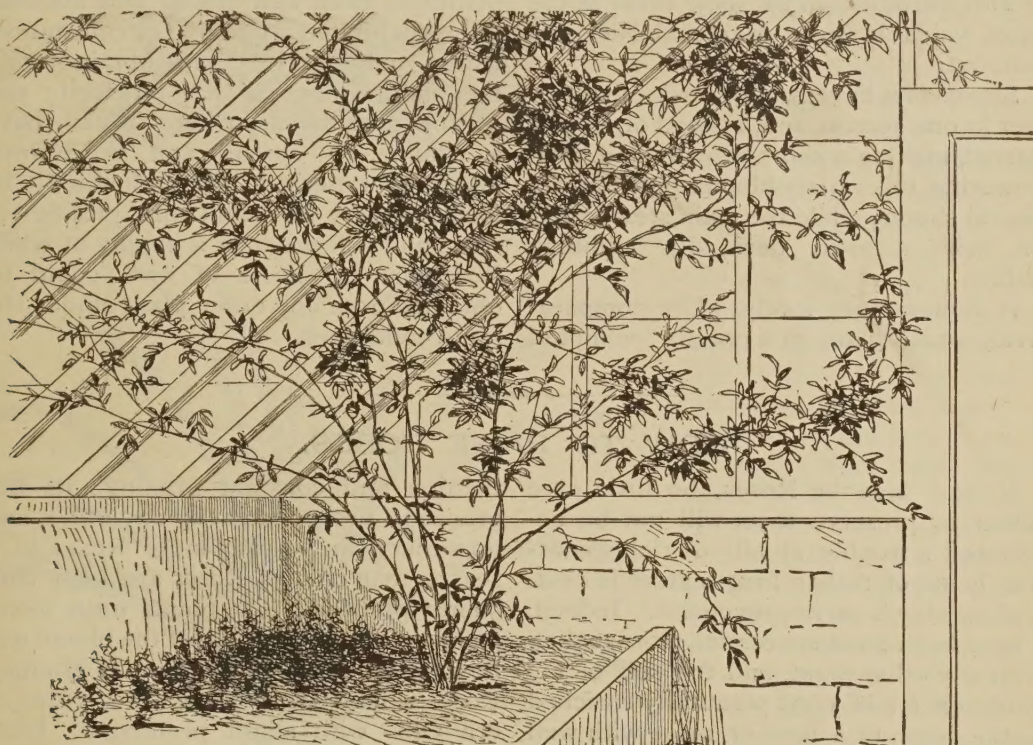
a result we see all about us Rose bushes growing up and producing some small flowers at the extremities of their branches. In time, the plants become so tall that it is quite inconvenient to give them shelter in the cold season, and they are finally left to struggle with old Boreas as best they may. As a result they become unhealthy, unsightly, a prey to mildew and insects, and finally are removed to the brush pile. But in the meantime the owner has not learned any thing from this object lesson before his eyes for years. If he plants another Rose bush, it will be treated in the same way. The low bush or dwarf form is the best on all accounts for our so-called hardy Roses. The shoots that grew the previous year should be cut back in early spring to six inches or a foot from the ground. From these stems that are left will be new shoots which will bear the present year's bloom. In all cases the shoots that flower start from the wood that grew last year, and the object of pruning is to keep this new growth down close to the ground, and to regulate the amount of bloom by the quantity of last year's growth that is allowed to remain. In spite of the best of pruning the tendency of the plant is to make its new wood higher up each year, but the skillful pruner will attend to this and not allow his plant to get up too far; a shoot sometimes starts voluntarily, or, if not, it can be forced out low down, and advantage is taken of it to renew the whole plant, cutting away all the older growth above it. Thus, with a little care, the Rose bushes can be kept low, and in this form they are easily sheltered in winter, easily syringed, and their flowers are produced where they are best displayed. The yearly care required for a dozen Rose plants in the garden need not exceed twelve hours—an hour apiece.

These remarks about pruning apply to the most popular kinds of Roses, those commonly cultivated, the Hybrid Perpetuals and Mosses. It would not do to prune so closely the hardy Yellow Roses and the climbing Prairie Roses. But the general principle of shortening in the growth of the previous year applies the same to these. The little Polyantha Roses, also, require to be well cut back every spring. In regard to the Polyantha varieties, after still another year's ex-

perience with them, we can only mention them in unqualified terms of praise for their hardiness and habit of abundant bloom. Elsewhere, in this number, will be noticed the introduction of a new variety, *Madame Blanche Rebatel*, of a beautiful red color, something new in this class, and giving promise of a great future for it.

Well informed and experienced Rose growers appear to differ very considerably in their estimate of the most select varieties of the Hybrid Perpetuals; one cause of this is, perhaps, difference of location. After considering all points, the following list is offered as embracing the cream of all the Hybrid Perpetual varieties:

Abel Grand, American Beauty, Anne de Diesbach, Baronne de Bonstetten, Baronne Prevost, Baroness Rothschild, Boieldieu, Charles Margotten, Comtesse de Serenye, François Michelon, General Jacqueminot, La Reine, Louis Van Houtte, Mabel Morrison, Madame Joly, Madame Victor Verdier, Marguerite de St. Amand, Marie Bau-



CLIMBING NIPHETOS ROSE, AS GROWN BY KEYNES, WILLIAMS & CO., SALISBURY, ENGLAND.

mann, Marshall P. Wilder, Maurice Bernardin, Merveille de Lyon, Pierre Notting, Queen of Waltham, Rev. J. B. Camm.

These varieties have all been thoroughly tested, and there is no doubt about their good qualities. This is not to say that there are not many other varieties which are highly esteemed, but in the selection of any in the list named there is no chance to go astray. As to new varieties, they are constantly coming forward, though but very few of all that are introduced are retained in the best collections as really valuable. At present, some of the most promising of the newer Hybrid Perpetuals that have had a partial trial are, Clara Cochet, Dinsmore, Earl of Dufferin, Edouard Hervé, Gloire de Margottin, Grand Mogul, Lady Helen Stewart, Mlle. de la Seiglière, Mrs. Caroline Swailes, Mrs. John Laing, Mrs. Joseph Desbois, Sir Rowland Hill and Victor Hugo. The present season's experience with them will probably make their qualities better known, and further expression of opinion about them is deferred until after the blooming season.

But few of the Hybrid Perpetuals are employed by the florists for forcing under glass, an especial favorite, however, for this purpose is General Jacqueminot. For forcing, the Tea-scented varieties are preferred. Three very beautiful varieties of these, Catharine Mermet, Papa Gontier and The Bride, are shown in our colored plate in this number. One of the most esteemed forcing varieties is the Niphetos, and now a

valuable addition is offered to florists in the form of a climbing variety of Niphetos. This is a sport from Niphetos, an acquisition by KEYNES, WILLIAMS & Co., of Salisbury, England. In regard to it they have the following to say:

It seems difficult to believe that the grand old variety, Niphetos, can be improved upon. Nevertheless, it will be apparent to every one that a continuous blooming Climbing Niphetos must be a great advance upon its parent.

This introduction we look upon as the most valuable since Maréchal Niel was sent out.

Shoots of it have run upwards of twenty feet in one season, and, instead of, like its parent, making a short growth and then flowering, this variety blooms only from its lateral shoots, while the main stem grows on with a most decidedly climbing habit.

It flowers very freely. The comparatively small plant in a pot we exhibited

before the Royal Horticultural Society in London, bore forty-eight splendid blooms, and was awarded a first-class certificate. It received also the same award at Bath Show.

The flowers of the variety now offered differ from those of the old Niphetos (from which it is a sport) only in that they are of a purer white, not showing the pink tinge, and that they seem more delicately scented.

It appears from the foregoing that the plant has been well tested and successfully exhibited under circumstances where only merit could obtain for it the endorsement it has received; and in the greenhouse, where it can have a chance to spread and be trained along the rafters, it will undoubtedly be found a very beautiful and prolific variety, and will produce a supply of white Roses far in excess of what could be obtained from any other plant under the same conditions.

HOW TO RAISE ROSES.

If you love the Roses, the little care taken to preserve them will not be accounted a trouble at all. A rich, generous loam of rather firm texture is best. Yellow clay is an improvement. Indeed, I have been most successful, more so than with any other plant, and the soil of my garden is a stiff clay, plentifully enriched to the depth of a foot or more with well rotted cow manure. This should be at least a year old when used. Spring is, in most localities, the best time for planting. Choose a sunny place fully exposed to light and air. While the Hybrid Perpetuals may lay claim to be more beautiful as to size, color and fragrance, with the merit of being quite hardy with but slight covering, many of the Hybrid Teas are even more satisfactory, for they bloom the whole season through, while the former are but glorious in spring and fall. Among the Hybrid Teas, as among the others, there is so great a variety that it is hard to choose. If I could have but one variety, I should choose La France, as containing all the most excellent qualities, and the sweetest of all Roses. Among my collection no one kind is plucked oftener or loved better. Its flowers attain an immense size under care and cul-

tivation and constant pruning; its fragrance is not equaled by any other, and no variety can furnish more Roses in a season than it; the Roses are kept constantly plucked. The plants must never feel the lack of moisture or the bloom will be injured. The hardier sorts of Monthly Roses will winter well here in southwestern Ohio with slight protection. Bank up first with dirt for six inches or more as winter approaches, and after a slight freeze give further protection with leaves or straw, or, better still, evergreen boughs stood up thickly about the tops. The leaves or straw must be interspersed with sticks to keep the material loose, while the evergreen branches will not exclude the air yet will amply protect. All Roses are better for a light covering. Do not uncover too early. It is seldom advisable to uncover before the first of April, and if the season is backward, two weeks later will do. Loosen the ground about the plants in the spring, and fork in some well rotted manure. In pruning, cut back severely before the shoots start into growth. Sometimes the shoots have to be cut back to the ground, if the winter has been severe, but new shoots will soon appear and flower as well as ever. H. K.

A SATISFACTORY HOUSE PLANT.

The *Imantophyllum miniatum* is rarely seen in the collections of amateur florists, but is, nevertheless, one of the best of plants for either greenhouse, conservatory or window culture, combining, as it does, beauty of flower and foliage with that indispensable attribute of the perfect flower—fragrance. It possesses a wide range of floral possibilities, having evidently “all seasons for its own,” and, I might add, nearly all circumstances and conditions also, when I reflect on the adverse situations in which this persevering plant has put forth its buds and blossoms. Last spring, however, it rebelled; it had endured neglect and ill treatment long and well, but



IMANTOPHYLLUM MINIATUM.

“drew the line” at the crowning indignity of “no room,” being crowded into a pot of about one-fourth the proper size. Transferred to a box and placed in the shade on the north side of the house, where little, if any, sunshine ever reached it, I found, in autumn, that even with these sepulchral surroundings it was producing the buds it had withheld in spring. The penitent plant was reinstated in the house, out of danger from frosts, and in a short time twelve beautiful blossoms crowned the summit of the flower stalk. Later in the season the plant was better provided for, and honored with a ten-inch pot, and to-day, March 26th, it lifts up six flaming cups to catch the sunshine in the south window, while other buds are duly developing and waiting their turn to expand, giving promise of

an extended period of bloom, and the pleasure their presence and beauty afford us.

When grown in the greenhouse the flower clusters are often immense. Though I do not wish to state it as a positive fact, I have been haunted with the idea that I once counted over thirty pedicels on one stalk. The flowers bear a strong resemblance to those of the *Amaryllis*, but the foliage grows in a much more satisfactory manner. The *Imantophyllum* is an evergreen, the strong, dark green leaves spreading out in fan shape, giving the plant a decidedly tropical appearance and rendering it highly ornamental even when not in bloom. The color of the blossom is not easy to describe, it being neither red nor yellow, perhaps salmon is as good a definition of the hue as one could give. Its fragrance, though far less powerful, is very similar to that of the *Phyllocactus phyllanthus*, the Cactus so often mistaken for the *Cereus grandiflorus*. The capacity of the *Imantophyllum* for enduring “all things” in the way of neglect will commend it to those who, with a great fondness for flowers, find themselves without a corresponding degree of strength to care for them properly, and are hence obliged to cultivate only such varieties as are of the very long suffering kind.

MRS. LUNEY, *Hoosic, N. Y.*

SWEET CHERRIES.

Chemists, I believe, place a very low value upon fruits for food, the Strawberry being the lowest in the scale, and the sweet Apple the highest. Just where the meaty, satisfying, delicious, sweet Cherry comes in I have not taken the trouble to learn, but there is certainly no more pleasant fruit than Coe's Transparent, or Elton, when dead ripe and eaten from the tree. In these days, however, the boys do not have much chance in the Cherry trees, and there is no cause for alarm in regard to their dissipation in this manner, even were Cherries more deleterious than green Apples.

The city boy not only does not get a chance to gather for himself, but utterly fails to find in the market any sweet Cherries that are anywhere near what the tree-ripened Cherry is. Like the most delicious of the Plums and Peaches, the sweet Cherry only reaches the highest perfection on the tree. If the weather is dry and airy it will keep after ripening nearly a week on the tree, barring birds and boys, but pick it and take it to market and twelve hours reduces it to a state hardly fit for pigs.

If you have a small, nice lot of Governor Wood or other fine, early, yellow Cherries to sell, your groceryman, if he has had none, will buy them at a fair price; but the chances are that he will not buy a second lot, unless his trade is such that the fruit will sell in a few hours. If he keeps them over night, you will have to find a fresh groceryman the next day, at least, that is my experience in marketing fully ripe Cherries.

With sour Cherries it is different; the average palate does not make fine distinctions in shades of sourness, and the bright red color hides the spots of incipient decay, so the dealer is able to keep the plump, short-stemmed, bright colored Early Richmond until sold, and thousands and tens of thousands of bushels are sold each year two or three hundred miles from where they grew, being nicely shipped in the two bushel Cincinnati berry stand.

In spite, however, of the ephemeral character of the sweet Cherry, I have found it a profitable fruit to grow, and believe I could easily find a market for the fruit of several acres if I had

them, delivering the ripe fruit directly to consumers.

I know of a little door yard containing seven trees, from which were sold nearly ninety dollars' worth of fruit in two seasons, and somebody reported at the last meeting of the Western New York Horticultural Society of one tree that yielded eighty dollars' worth of Cherries. In this case the yield and price must have been exceptional in the extreme.

In spite of the increase of population, I think the last twenty years has witnessed an actual shrinkage of the number of sweet Cherries, in Ohio, at least. This is owing, I think, to two causes: the prevalence of the black aphid, which killed many trees and discouraged planters, and the practice nurserymen have got into of using the Mahaleb as a stock whereon to bud the Heart as sweet varieties.

My own experience, and that of other nurserymen, is that it is very much easier to get a good stand of buds on the Mahaleb stock than on the Mazzard, and it seems well adapted for Dukes and Morellos, but for the sweet Cherries nothing is as good as the Mazzard. The ordinary manner of making Cherry trees of a certain variety, is to buy or raise one or two year seedlings, transplant in the spring into the nursery row, give vigorous, thorough cultivation, and bud in July. Trees that fail to take can be whip-grafted with tolerable success in the following March, provided the scions were cut in December and preserved in moss in a very cool cellar or cold storage house. There is considerable confusion in the nomenclature of sweet Cherries, or rather in the varieties sold under popular names, and if a person knows of a tree or variety he would like to possess, it is a safe and satisfactory way to start or buy some little trees, and bud or have budded from the bearing tree. A couple of years' time will be lost in the proceeding, but the variety will be a fixed fact.

Of varieties, the Black Tartarian undoubtedly heads the list for beauty and quality, but, in Ohio, it does not seem entirely hardy, and bearing trees are very scarce. The Ohio Beauty, a deep red Cherry of very meaty character, and a trifle larger than the Tartarian, but not

so juicy and vinous, is a magnificent Cherry, and should be in every collection. Of the yellow varieties, Governor Wood, Elton, Coe's Transparent and Rockport have succeeded finely for me, ripening in the order named. Following these, and ripening with the Black Tartarian, and just after the Ohio Beauty, is the Downer's Late, when fully mature of a lively red. It is a hardy variety, withstanding as much cold in winter as the Duke varieties; an abundant bearer, and when fully ripe of excellent quality. It has the peculiarity of being quite bitter until fully ripe.

Last of all comes the Napoleon Bigarreau, the largest of all Cherries, being as large as the end of a man's thumb to the first joint, or a good sized Crescent Strawberry, and the tree is also much

larger than a common Cherry tree. One can, in eating this variety, literally "make two bites of a Cherry" without being charged with undue economy or over-fastidiousness. This variety has one serious fault that greatly cripples its value. The fruit frequently rots just as it is approaching maturity.

The Cherry delights in a dry, warm, clayey loam, and thrives finely without cultivation after the first two or three years. It is emphatically a tree for the dooryard, although it should not take the place of ornamental trees.

Wounds on the Cherry do not readily heal, and care should be taken to get perfect trees, and set them where they will not be injured by wagons or garden tools.

L. B. PIERCE, *Summit Co., Ohio.*

FAIR SPRING'S BEQUEST.

Fair Spring is dead, but faint is our regret,

Although with joy our waiting hearts were fraught
When, winter gone, Snowdrop and Violet

And many other dainty blooms she brought?

For, in her place, the golden Summer's here;

On earth and sea her magic light she throws,
And brown bees hum, and birds sing loud and clear,
As, with a smile, she offers us the Rose.

The lovely Rose, to which we tribute pay,

Hailing it queen of all the flowers that grow

In garden, field, or woodland green,—but, stay,

Is it to Summer we its beauty owe?

When April, Spring's coy daughter, came, each bush

Put forth the tenderest shoots of purest red,

And from them soon young leaves began to push

And o'er the thorny branches quickly spread.

And, day by day, they drank the welcome showers,

And, day by day, by kindly sun were cheered,

Till May gave bluer skies and warmer hours,

And tiny buds in mantles green appeared;

Buds that were ready at the June's first call

Their pink, sweet-scented petals to uncloset.

And so, though Summer brings it, after all,

'Tis Spring's bequest—the lovely, fragrant Rose,

MARGARET EYTINGE.

FRITILLARIAS.

The several species or varieties of Fritillarias, or, as they are commonly called, Crown Imperials, form, when taken together, a group of very interesting and showy spring-flowering plants, belonging to the natural order Liliaceæ.

They may be described as being hardy bulbous plants, having somewhat coated bulbs, from which arises in the early spring a simple leafy stalk, from one to three feet in height, bearing long, narrow, bright green leaves. Nearly at the top of this stalk the flowery whorl of bell-shaped, double or single flowers is produced, and above it a tuft of bright green leaves, all forming a pretty crown, whence the common name of Crown Imperial is derived. Much might be said in praise of this old fashioned spring

blooming plant, but as it has been cultivated nearly three centuries it may be met with everywhere, for it is one of those hardy and useful plants about whose culture there is no mystery or difficulty, and once put in the ground in any common garden soil, so that it can obtain a fair start, it will continue to grow and increase from year to year, and early in spring it will appear to relieve the monotony and impart a lively appearance to the flower or mixed border, with its bright green foliage and pretty, but not fragrant, flowers.

Within the past few years the flower growers of Europe have paid considerable attention to the Fritillarias, and with very gratifying success, and the result is that they have produced from seed many

beautiful and distinct varieties. Although the *Fritillarias* will thrive in any soil and situation, yet they will well repay a little care and attention ; so, in planting, it is best to give them a deep, moderately enriched soil, and to place them in groups of from three to five bulbs, keeping them a little apart. Plant about five inches deep, and mulch with coarse, littery manure before the ground freezes in the fall. They do not usually flower well the first season after being planted if the weather proves to be dry. Frequent removal or disturbance of the bulbs should be avoided, unless for the purpose of propagation, and this is effected by a division of the bulbs. It



GOLD-STRIPED LEAVED CROWN IMPERIAL.

should be borne in mind that the stalks should not be removed or cut off until they are thoroughly decayed or ripened. The following are the most distinct and desirable varieties briefly described :

Fritillaria imperialis, (Crown Imperial.) A native of Persia, growing about three feet in height, and producing large, drooping, red flowers.

F. imperialis rubra-pleno, has double, red, drooping flowers ; very distinct and desirable.

F. imperialis flore-luteo, has single, yellow, drooping flowers.

F. imperialis flore-luteo pleno, has double, yellow, drooping flowers ; a very distinct and beautiful variety.

F. imperialis folium aureum, is chiefly grown for its foliage, which is beautifully striped and margined with gold ; grows about two and one-half feet high.

F. meleagris, (Checkered Lily.) A native of Europe, growing about one foot in

height. Flowers large, nodding, checkered with purple and yellow; a very distinct and desirable species.

F. Persica, (The Persian Crown Imperial,) is a strong growing species, attaining a height of three feet, and producing

its flowers, which are of a brownish-purple, in a pyramidal naked raceme.

F. pudica, (Golden Fritillary,) a native of Oregon, producing its bright golden yellow flowers early in the spring.

CHAS. E. PARNELL, *Queens, N. Y.*

GRAPES IN NORTH CAROLINA.

The ease with which the vine is cultivated in the Carolinas, and the fine flavor and quality of wines made from native Grapes has led to the planting of many vineyards in the Old North State of late, some of which are already famous for their fine Grapes and large yield. The finest of these vineyards are found upon the steep southeastern slopes of rocky hillsides, looking down upon fields of grain below, and are in autumn loaded with enormous yields of luscious fruit, varying through all the shades of color from dark purple to a rich, golden green. The soil is guiltless of vegetable or animal fertilizer, and the vignerons will tell you that rocks are the best fertilizers for Grape vines, their theory being that in the disintegration of rocks the roots find phosphates which increase the yield of the vines, and add to the flavor of the fruit, without over stimulating it to a growth of leaves and luxuriance, and causing the Grapes to rot, as animal and vegetable manures do.

In these vineyards, as might be expected where there are so many fine ones to choose among, native varieties predominate, and strangers are incredulous over the number and fineness of them. A vineyard near Wilmington, N. C., of four hundred acres, is devoted almost exclusively to the Scuppernong. This wild queen among all grape vines will not bear too much vineyard taming, and is a thorough rebel, for north of the Potomac it will hardly ever grow, and luscious fruit yield never. The fruit produced there is hard and green and flavorless, and was pronounced by more than one disgusted cultivator as fit only for bullets in time of war. But under southern suns it mellows and softens into large, clear globes of amber, purple or green golden hue, with delicate bloom and exquisite fragrance. There are many varieties of it, differing in point of merit, but all are good. Its luxuriance in

growth is amazing, and it needs and will bear but little pruning, which is done by pruning off the lateral or side branches in fall or summer. Many of the established rules of culture it sets at defiance. Stakes and plows are ruinous to it, and so is hot sunshine upon the stems and roots. So the vines are planted about thirty feet apart, trained over high trellises or arbors, as all vines are in Ischia and Lombardy. The roots are heavily mulched and weeds and grass kept down. Its dainty forest tastes scorn the usual modes of fertilizing, and in strong soils it refuses to grow. A very strong point of the Scuppernong Grape is that it never rots as the Catawba and some of our other fine native varieties do. The Grapes have a thick, leathery skin, with soft, juicy pulp, and the wine takes on from the skin a peculiar aroma, similar to the Tokay of Hungary. This aroma is prevalent everywhere throughout eastern Carolina during the season of ripening Grapes, for the Scuppernong, *Vitis rotundifolia*, is more fragrant, both in bloom and fruit, than any other Grape I know.

The Catawba is more amenable to culture than the Scuppernong, and its wine is famous everywhere. Its great purple clusters hang thick in many places over the smooth or rippling waters of the river—traversing the western section of the Carolinas—from which it takes its name. It is one of the numerous varieties of *Vitis labrusca*; a round, purplish-red Grape, easily trained upon walls or trellises, and delightful also for table use. It ripens very late in the latitude of the New England States, and is apt to suffer from early frosts. It has improved greatly by cultivation, and has only one weak point, its liability to rot under untoward seasons and circumstances. In Ohio, Kentucky and the Middle States, as well as in the Carolinas, it is extensively cultivated for wine making.

Concord, known in many other States, and so generally cultivated everywhere, will hardly need a recapitulation of its good points here.

Isabella is another good wine Grape, but the ripening fruit requires more shelter to prevent decay than can be given in open vineyards, and so is largely grown trained over houses, porches, arbors and trellises ; it is a favorite table Grape.

Warren, and Pauline or Burgundy are not so generally known, but the latter is a very fine Grape. The berries are bright reddish-brown, transparent, juicy and very sweet. The skin is thin and bunches large and shouldered. In dry weather, if allowed to remain on the vines, the berries will wither and dry into raisins. The leaves are large and yellowish-green, dented and curved at the edges ; the ends of the young shoots have a peculiar blackish appearance as though diseased, and the buds are very large, the wood deep red.

From the old wild Fox Grape, *Vitis labrusca*, also descended many of the finer varieties, among them Isabella, Catawba and the Muscadines of cherished childish memory. This wild savage trails all over the trees near streams and swamps, and hangs its loose clusters of large, dark blue berries upon the high outer limbs as prizes for feats of skill and daring and agility in climbing. How well I remember toddling, a tiny, pinafores youngster, about after my little brothers, and holding out my apron under the trees to catch the great bunches

which they dropped down from above. This Grape, has a thickish skin, is always pulpy, and has a musky flavor ; and the knowledge that unbecoming greediness in this direction would leave blisters on their tongues, was a means of stimulating generosity, which I often used with my little brothers to my own advantage.

Vitis æstivalis, the Summer Grape, also parent of many fine varieties, is a much smaller and more common Grape, growing luxuriantly over trees in the edges of forests and clearings. The bunches are very large and shouldered ; berries small, purplish-black, and thickly set, round, rather acid and never pulpy. The leaves are broadly cordate, three to five lobed, and when young downy with cob-webby hair beneath. It is much used by housewives for the making of cordials, marmalades, jams and jellies.

Vitis cordifolia, Winter or Frost Grape, so called because it ripens very late, and is not edible until sweetened by the touch of frost, tangles itself over shrubs and bushes everywhere. The Grape berries are small, black and very tart. Trees hung all over with its black clusters, after losing their leaves, look as if draped in mourning. The fruit hangs on into midwinter and spring, and it is often called, by the darkies, "Possum Grape," because those small animals delight to feed upon it. The leaves are thin, glabrous on both sides, with broad, mucronate teeth. It is never cultivated.

L. GREENLEE.



FOREIGN NOTES.

PRUNING ROSES.

It is an astonishing thing to see how that, year after year, the chances of obtaining the most beautiful Rose blooms are frittered away through unintelligent pruning of the plants, even in gardens of great reputation. There are thousands of Rose bushes all over the country which, in spite of being found in spring to have made fine growth during the previous season, never produce good flowers, and the explanation is generally to be found in the fact that no reasonable plan is followed in pruning.

The commonest mistake is the leaving of the older branching spray wood that has already flowered. Dwarf Rose bushes at the beginning of the year generally consist of several much-branched stems which carried bloom in the previous summer, and several strong straight shoots springing from the base of the plant. In the case of Hybrid Perpetuals, these older branching stems should be cut completely out, leaving only the new shoots from the base which themselves should be then considerably shortened. If the old spray wood be left in it produces no flowers worth having, while the weak and crowded growths with which it becomes covered afford a perfect harborage to every known Rose pest. Nevertheless, it is a common thing for the unlucky Rose bushes in many gardens to be uniformly clipped over with the shears, much as a hedger might top a Quickset, with a view to making a shapeable plant, and then the people wonder why they never have good Roses.

The only way in which a fine healthy growth can be obtained strong enough to be exempt from the attacks of aphides and able to carry beautiful flowers is by cutting out all the old wood that has done its work in having flowered the year before, and relying solely upon the straight new shoots. The extent to which these should be shortened depends rather upon their thickness than upon their length. If they are no thicker than a cedar pencil they may be cut right down to the base; if they are as thick as

a finger they may be left three inches, six inches, or nine inches long where the wood is sound—that is to say, is well ripened and uninjured by frost. At first it may seem to many a great waste of material to cut these stout shoots, which are often five feet or six feet long, down to within six inches of their base, but it is rarely advantageous to leave a greater length than nine inches at the outside. It must be borne in mind that the new growth starts from the tops of the pruned shoots, and therefore if these are left long the effects of a high wind in early June are liable to be disastrous, the weight of foliage and flower buds at the end of a long stem causing them to sway to and fro and chafe against each other, or even to break short off.

If, however, when a shoot is cut through, the pith is found to be discolored, or there is a yellow ring between the pith and the surrounding hard wood, the shoot must be cut down still shorter, even to the surface of the ground if need be—to get below the discoloration, for though the eyes on the frost-bitten part of these shoots will often start into growth, they soon die back and never produce a flower, or at least only a deformity.

In addition to a discrimination between the old wood and the new—"be off with the old wood before being on with the new" might almost serve as a motto for Rose pruners—discretion must also be exercised as to the nature of the varieties dealt with. The foregoing remarks apply, as has been said, to Hybrid Perpetuals of the usual type, and are likewise ordinarily applicable to the majority of dwarf Teas grown in the open; but the treatment is not to be adopted in the case of climbers, or the Dijon Teas, unless indeed it is desired to sacrifice bloom for a season in order that the plants may climb higher. It would seem superfluous to mention this, but that the recommendation to prune dwarf Roses hard has before now resulted in the cutting down of every Rose in a garden to the same level, and only recently a fine set

of tall standards of such Roses as Gloire de Dijon and Reine Marie Henriette which had made magnificent growth and promised a grand display of bloom were found to have had every single shoot ruthlessly chopped off within an inch of the base—a proceeding which can only result in a late, though probably very strong, flowerless growth.

Such climbing Roses only need to have their long shoots tipped, just a few inches taken off the ends, as far back as they may have been touched by the frost; although it is well that the pruning of these Roses, as of all Hybrid Perpetuals, should be begun by cutting out the old wood that carried flowers in the previous July.

T. W. GIRDLESTONE, in *The Garden*.

PRUNING MOSS ROSES.

I have some beds filled with Moss Roses, the sorts being the Common Crested and the White Bath. After the first year of planting they were pruned in to two or three eyes on each shoot, and the following summer the plants made good clean growth. Instead of pruning the shoots close in again, I left them about two feet long and pegged them down. From nearly every eye the plants broke freely, and made good shoots which flowered well. The next spring I cut back these growths to within one or two eyes of the main branch, and the results have been satisfactory. This practice may not be new, but it has the effect of more quickly covering the bed with shoots, and consequently flowers, than could be done by close pruning annually.

S., in *The Garden*.

SEEDLING PETUNIAS.

Years ago hardly any one thought of raising seedling Petunias, and the few then grown were named sorts raised and perpetuated by cuttings. But now the thing is quite reversed, and the most of what are met with are seedlings, and very beautiful they are, especially such as have been raised from good strains. The flowers of these are not only large and of fine substance, but exquisitely colored and marked, some being dashed or striped with white or cream color on a rich dark ground. Not only are there plenty of these single varieties to be had

from a packet of seed, but double ones, equally showy, or perhaps more so, may be raised in the same way, as those who make a specialty of this class of plants hybridize them for the purpose, and use pollen from double flowers to fertilize the singles, and then the seed from these gives a goodly number of doubles. Some of these come exquisitely fringed, and are admirably adapted for pot culture; and so, too, are the singles, which are also of great value for large beds and borders. The best way, I think, of managing them in the last named position is to run a piece of coarse-meshed wire netting round each plant, through which the branches of the Petunias run, and so support themselves and quite hide the netting from view.

S. D., in *London Garden*.

NEW POLYANTHA ROSE.

The well known originator of new varieties of Roses, BERNAIX, near Lyons, France, has a new variety of the Polyantha class, called Mademoiselle Blanche Rebatel.

The plant is very dwarf, well branched, and blooms freely the second time. The numerous flowers are disposed in strong, corymbiform panicles, and are very double and of a beautiful red, much resembling in color the Bengal Rose Cramoisi supérieur. This variety has been figured and described in the *Journal des Roses*.

The *Revue Horticole* says of it, that besides its incontestable merit, it has the other advantage of opening a new way in the group of dwarf Polyanthas, by its deep color, which, up to this time, has not existed in this series of Roses. Rose growers will profit by it, and, soon, thanks to their skill, this group, already so interesting, will be further enriched with new forms.

A POLYANTHA TEA ROSE.

This interesting novelty has been obtained by crossing Mignonette with the Tea Rose Madame Damaizon. It is called Clotilde Soupert. The plant is said to be intermediate between the two parents. The *Journal des Roses* describes it as a vigorous variety, attaining a height of sixteen to twenty inches, much branched, branches erect, smooth,

of a handsome brownish-green; thorns quite large at the base, long and nearly straight. The foliage, which is abundant, is of a bright, shining green, and has never shown any mildew. Flowers erect, slightly inclined at the time of opening, disposed in corymbs, and about two inches in diameter; they are at first very full and globular, then flattened, of a creamy white color which changes to a beautiful carmine, deeper toward the center.

The plant is a frequent bloomer, and often presents on the same stock some rose-colored and some white flowers.

STRIPED-LEAVED PLANTAIN.

A striped-leaved variety of the Lance-leaved Plantain is a French novelty as an edging plant. A plant in a meadow was observed with some light stripes; it was marked, and seeds taken from it, and after several successive sowings the well striped variety was obtained, which is now sent out as *Plantago lanceolata marginata*.

HORTICULTURAL CHARLATANS.

This country is not the only one where fraudulent plant and tree venders ply their arts. The following advertisement appeared in a local French paper:

IMPORTANT ANNOUNCEMENT.

Henry IV St., No. 20, next to M. OFFRAY, Gunsmith.

M MARIGOT, horticulturist of Angers, has the honor to inform gentlemen amateurs that he has just arrived in this city with a collection of rare and new plants of all kinds for rooms and for the garden. In this beautiful collection is the handsome Maroc Magnolia, with large red flowers, as also fine fruit trees of the newest kinds, such as Pears, Peaches, India Cherries, with large fruits, (20 Cerises un kilo—that is, 20 Cherries weighing something over two pounds,) Currant bushes (800 grammes la grappe—about one pound and three-quarters to each cluster,) Raspberry bushes from Australia, giving fruits the size of hen's eggs, Strawberry plants from Jerusalem, Queen Victoria Gentiana, with red flowers, making it the ornament of the garden, 1,000 varieties of Roses on their own roots and in tree form, among which may be found especially the red Rose with a white heart, or center, of twenty inches in circumference, and the green Rose with the yellow center. All these plants are first-class.

The sale will last but a few days, and the public is requested not to postpone a visit to this magnificent exhibition of plants.

This is almost or quite equal to the efforts of some of the traveling venders of this country and shows that the tricksters' art is not confined to one nationality, but

is probably a natural outgrowth of congenial conditions that exist in connection with dealing in organized bodies, either vegetable or animal. Tree dealers and horse jockeys have all inherited honestly some of the craftiness of the old patriarch who was first to rise to affluence by watering fancy stock.

ROSA GIGANTEA.

This new species of Rose has lately been discovered in the elevated regions of Burmah, and seeds of it are already in the possession of French horticulturists. The dried specimens of flowers which have been received show that they attain a size of some five inches in diameter, and are of a clear white.

This species grows to an enormous size, developing climbing stems forty feet or more in length. It grows in a region where frosts are scarcely known, and consequently, whatever use is made of it in hybridizing must be in connection with varieties of the Teas and other tender classes.

ANOTHER NEW VEGETABLE.

According to the *Revue Horticole* another new vegetable has been introduced into France by M. PAILLIEUX, the indefatigable collector of new alimentary plants. The plant has been received through the aid of M. BOULEY, head gardener to the Maharajah of Cashmere. It is called the Congalou. This vegetable is a sort of Turnip with the form of a Radish, and with the skin of an attractive bright red color. The flavor is nearly that of the ordinary Turnip, but very much stronger; the consistency of the root is such that it does not soften in cooking. It appears that in the Himalayan regions the Congalou is eaten as a salad, sliced in very thin rounds and highly seasoned.

A WHITE COBŒA.

A variety of Cobœa scandens with white flowers has been produced in France, which has otherwise all the habits of growth and bloom of the species. At Paris they have planted the two kinds alternately along the foot of a wall over which the vines have been trained, and the white and violet colored flowers by their contrast have formed a beautiful ornament.

PLEASANT GOSSIP.

THE CHINESE SACRED LILY.

I would like to know how to treat the Chinese Sacred Lily so as to obtain a grand bulb for blooming next winter. I was given a fine bulb in December, which I planted in rich sandy soil instead of putting it in water, as many do. It grew finely, and had six fine flower stalks, each with five and six flowers, and was a thing of true beauty. I kept pure water in the saucer all the time. As the leaves of the plant died away there came up on each side a bunch of fresh leaves, which, I suppose, are for a new bulb; and I would like to know if these should be taken from the old bulb and repotted, or, as the summer comes, would it do to put them in the garden to perfect themselves?

M. P., *Connecticut.*

It is improbable that this bulb, under any treatment it may receive, will again give bloom equal to what it gave the past season. Its period of best bloom is past, and henceforth both the number and size of its flowers must be expected to decrease annually until the bulb itself dwindles away. In the meantime, under proper conditions, the young offsets can be grown large from year to year until of good blooming size. In regard to this special culture of the small bulbs, we know from experience but little in this country. The propagation of the *Narcissus* and the after-growth of the small bulbs to mature size is better understood in France than elsewhere, better, we believe, than in Holland. In England it is also conducted to some extent with good success.

The Chinese make a specialty of cultivating the particular variety which is known as the Sacred Lily, and, also, the Grand Emperor, and the variety appears to be one of which, up to this time, the Chinese have had sole control, and which, even now, European cultivators have not taken in hand to propagate, or, at least, have not yet put into their trade.

That this bulb should be grown exclusively in water, is disproved by the statement of our correspondent, but that it should have an abundant supply of water there is no doubt, and it was through this constant supply that the bulb in question thrived and bloomed so well. Now, the best treatment it can have is to have the ball of soil turned out without disturbing

the root, and be planted in the garden for the summer. Here it can remain to bloom another springtime, or it may be removed in the fall and potted, and be treated as before, but, as has been remarked, it cannot be expected to give as good results again.

However, we have no hesitation in saying that the variety *Grand Monarque*, if well managed, will be quite as satisfactory as the Chinese variety, and we advise all who want a beautiful and fragrant plant next winter in the house, to take a bulb of *Grand Monarque* and give it the same treatment as described above. Pot it in light soil, set the plant in a saucer of water, and place it in a temperature that never goes much above 60°—ranging from 50° to 60° is best—and as a result there will be strong, healthy foliage, and fine, large, fragrant flowers.

It has been supposed that the varieties of *Polyanthus Narcissus* in the ordinary trade would not thrive with the simple water treatment that the Chinese give their Sacred Lily, but this is not so, as we have proved. The bulbs have been placed in a dish of water having a few stones in the bottom for the roots to run about and hold to, and other small stones around the bulbs, all to hold them in place. Water must be supplied daily as it is evaporated, and the plant stand in a full light. Under these conditions all of the varieties of *Polyanthus Narcissus* will make good foliage and fine bloom. If potted in soil, they will do far the best if the pot is kept standing in a dish of water two or three inches deep, and never allowed to become dry.

Now, as to the variety *Grand Monarque*, it is a large, heavy bulb, and will throw up several strong stems, each of which will produce clusters of large, white, fragrant flowers. There will be no disappointment in the use of the bulbs of this variety in the manner described. As the bulbs are not expensive and can easily be procured in autumn, one need have no anxiety about keeping them over after blooming, but they can be turned

into the open to take their chances, and strong new bulbs be procured for blooming the following season. Water is the great demand of these plants, and unless they have it plentifully they will not be satisfactory. If given water to stand in even when potted in soil, it is not necessary to set them away in the dark to allow the roots to grow before exciting the foliage to start, but may be placed at once in the lightest place, and the roots and leaves will grow at even pace and the bloom come at the proper time; not stunted leaves and flowers before the roots, as Hyacinths behave with like treatment.

If we wanted to save the bulbs over to bloom again, we should prefer to pot them in good soil, and set the pots in water, otherwise blooming the bulbs in water only is quite satisfactory.

The culture of the Narcissus as a house plant is rapidly increasing from year to year, and the beauty and fragrance of the flowers and the ease with which it can be raised will make it a great favorite.

Though we have named Grand Monarque because of its similarity in size and habit to Grand Emperor, yet it will be found, as has already been remarked, that any of the Polyanthus varieties will do well with the same method of treatment.

DESTROYING ANTS.

Can you tell me any remedy for small black ants? We have had every blossom eaten off half a dozen Pear trees two years in succession. The ants cover the trees every spring, then disappear after the mischief is done. The trouble is always with the same trees. L. S. L. M.

Some strips of paper wound around the trunks of the trees and tied on, and kept smeared with molasses all around would prevent the ants passing up into the trees. From the fact that only certain trees are troubled in this way, it is probable that the ants have their home near these trees. They should be caught and destroyed. Meat bones will attract them in numbers, and occasionally the bones can be picked up and dropped quickly into a pail of hot water. Pieces of coarse sponge with sugar in the cavities can be used in the same manner. Take some vials of sweet oil, nearly full, and sink them in the ground to the rim. The ants like the oil and will go and sip

it. But it has the effect to clog the breathing apparatus of the insects and thus destroys them. By following up these methods for a short time the infested ground can be cleared of the pests.

PLANT INQUIRIES.

Why does not the double White Narcissus bloom well for me. I purchased a bulb of it several years ago; it bloomed the first season after I planted it, and after that, for two or three years, the buds would always blight just before opening. I thought I would move the bulbs to other places, but it did not do any better, except for one season; then it bloomed again very nicely, but since that time it always blights in the bud. It grows finely, and I have had many bulbs planted in various places and in good rich soil. Please tell me why I must so often be disappointed. I have grown discouraged, and feel like digging up all my bulbs and throwing them away. The original bulb was bought ten years ago.

Nearly two years ago I bought a bulb of Liliun Harrisii. I planted it in September in a pot, and buried the pot in the garden until the plant grew enough to bring it into the house; it bloomed finely the first winter, when it withered down and dried in the pot. I supposed it must be dormant in the pot until the next September, when I again put it in the earth, expecting it to grow up as it did the first season, but it did not; only a little spare leaf came up in the pot. The main bulb rotted and left a tiny bulb in its place with only one small leaf on it. Did I treat the large bulb right in the first place? Ought I to have left the bulb in the pot, dry all summer, after the stalk dried down after blooming?

How ought I to treat Ivy Geraniums? Do they bloom and thrive best planted out in the sun, or in the shade?

M. L., Delaware.

We have had the same experience with different varieties of Narcissus that is here complained of. The buds dry and turn brown. We have attributed it to a lack of moisture, and our best success has always been when the plants have had a constant and abundant supply of water. The Narcissus is naturally a water loving plant, and it should be set in low, moist soil, or else supplied copiously with water during its season of growth and bloom. If any of our readers can give information on this subject it would be a pleasure to hear from them.

The Harris Lily should not have been allowed to remain dry in the pot all summer. In spring it would be better to take a plant that has bloomed, and sink the pot below its rim in the open ground, and in a very dry time supply it with water artificially. When it starts to grow, at the close of summer, it can be taken to the house, and, without disturbing the bulb, some of the top soil can be removed and replaced with fresh, rich compost. The plant was evidently treated well

enough up to blooming time, but the bulb could not stand being kept dry for so long a time.

The Ivy-leaved Geranium likes plenty of sun, but is one of those plants that appear well adapted to the many wants of many people, and thrives in hanging baskets and in pots under verandas, in vases fully exposed in the open air, in pots in windows, or in window boxes, or in the greenhouse. Give it good soil, and a fair supply of water in the growing season, and plenty of sun, and it thus has the best conditions it demands.

DAISIES—HEPATICA—VIOLA.

I wish that you could see a box of Daisies which has been up stairs, near the window, for a great portion of the winter. It is in a room which is only warmed by a stove pipe running through a sort of wheel register, which lets up a little warm air from the room below. The box is about as long as the width of an ordinary window, and perhaps six inches wide and the same in depth. It is not full of soil, but has some in it, and also a few Daisy plants on which I counted, to-day, April 6th, between fifty and sixty blossoms, either fully blown, and some of them immense, or so far advanced as to show their color, and how many buds there are I do not know.

I have had a Hepatica in a pot, this winter, and it has been in flower. I kept it in a cold room.

April 22d, Monday after Easter. The box of Daisies went to church Saturday night, to help swell the number of Easter decorations, and it came home again Easter evening. I have since picked several flowers from the Daisies, and to-day I counted the blossoms and buds which were showing white or pink, and including those which had been picked during the day there must have been between eighty and ninety, I think. The box, which measures on the outside about three feet in length, is about seven inches in width and five in depth. Being made of thick boards and covered with oil cloth, *a la* window garden, it probably does not measure much more than four inches in depth and five and one-half in width in the inside, and is not near full of earth, so it seems to me, all things considered, it has produced quite a yield of flowers. It has been kept in a window

where only a little of the morning sun could encourage the efforts of the persevering plants to put forth flowers, but they have succeeded in making a fine demonstration.

A cluster of Hepaticas, beside the porch, has sent up its pink blossoms, satisfying me that this little woodland beauty, which, somehow, I thought difficult to cultivate, is about as easy to grow as a hill of Corn, in fact, can take care of itself even better.

The Viola Canadense is sending up some foliage, or preparing to do so. I was struck by the mention of the fragrance of this little Violet, by the contributor who writes so well of the winter birds, for I never saw it alluded to before that I remember. I had discovered myself that a flowering branch gave forth a delicate odor, wonderfully suggestive of Apple blossoms, and that, too, when the Apple blossoms had long been a thing of the past, for, like some poor, forlorn, unappreciated child, which, in the home atmosphere, amounts to little, but under favorable conditions develop astonishing virtues or talents, the little flower, after being transplanted from its native woods, where the period of bloom is usually, I think, quite brief, developed the most persistent determination to flower in the "wild corner," and I do not know whether its efforts had really ceased when Jack Frost came to close the scene.

MRS. LUNEY, *Hoosic, N. Y.*

GOVERNMENT SEEDS.

Dr. HOSKINS, in the *Vermont Watchman*, thus announces:

Senator MORRILL has kindly sent us a package of seeds from the Department of our new Secretary of Agriculture. These seeds—Purple-top Ruta Baga, Sugar-loaf Cabbage, Dutch Case-knife Beans and Sugar Pumpkin—are not quite so new as Secretary RUSK's Secretaryship. They have, on the contrary, the advantage of being such as our oldest citizens can endorse, on the strength of a life-long experience of their merits. But why seeds only? Would it not be quite as proper for the general government to distribute among the people gratuitously jack-knives, boot-jacks, tooth brushes or horse shoes—all of the oldest patterns, of course?

IN JUNE TIME.

They walked down the meadow, one morning in summer,
 Among the sweet scents of the withering hay,
 And heard, in the woodland, the brown partridge drummer
 Beat up his shy soldiers to drill for the day.

The song of a lark, far above them, was ringing;
 It seemed that heaven's gate to the bird must be near,

While, like a refrain to the far-away singing,
 The sound of the mother bird's talk they could hear.

They paused by the bars where the blossoming
 Clover

Made bright the tall grass, lifting clusters of red
 For the kiss of the sun, as a girl to her lover
 Lifts up her pink cheek with her wishes unsaid.

"Did you hear what the south-wind was telling the
 Clover?"

He asked of the girl with the rosy-red cheek;
 "It thinks it's discovered in me, dear, a lover
 Who's something to tell you, and yet fears to speak.

"It said to the Rose by the wall, 'See him trying
 To hide from our eyes what he's thinking to-day.
 Were we blind we would know all his thoughts by
 his sighing;

Speak out, foolish fellow; while sun shines make
 hay.'"

Her eyes fell, and pale grew the Sweet Briar Roses
 With envy to see the bright cheek he had kissed.
 'Tis strange what the meeting of mute lips dis-
 closes—

How eyes tell of love with no words to assist.
 The wind and the birds and the brook fell to singing,
 Because two young lives plighted troth in that kiss,
 And down in their hearts was a gladder song ringing,
 And lovers will learn what the tune of it is.

EBEN E. REXFORD.

HELIOTROPE ALBERT DELAUX.

Heliotrope is a weakness of mine, and out of all varieties in my collection none is so great a favorite as Albert Delaux. In addition to the large panicles of flowers, looking, while yet in the bud, like circles of rich, tufted, purple plush, but lavender, shaded with violet, when open, it has large *crêpe*, crumpled leaves of rich green, irregularly blotched and marked with bright yellow. The combination of leaves and blossoms is royally beautiful. Add to this its rank growth, free blooming habit, and delicious perfume and you have a plant peerless, in my estimation.

Louise Delaux, her rosy clusters shaded with violet, is a fitting mate for Albert, and with Lady Cook, dark violet, and Madame Blouay, white, and Albert's leaves as a setting for all, you have a

bouquet than which nothing could be more beautiful or sweet.

The secret in growing Heliotropes is to give them as rich a soil as you can, all the heat you can, and all the water they will drink; given these conditions, you get a quick, strong growth before buds appear. Then give stimulants to make the flowers large.

Heliotropes have a thickly tangled network of fibrous roots that drink up an incredible amount of water, and the most satisfactory way of watering them is to set the pots in tubs of water, and let them remain until the soil is thoroughly saturated. Every evening during hot summer weather their drooping leaves will thirstily plead for this copious watering.

I have seen it stated that Heliotropes would not winter in pits, the moist atmosphere causing them to mold, but this is a mistake; where pits are well constructed and not too deep, given a place close to the glass, they thrive finely.

Stored away in a cellar, with tops cut off and roots packed in sand, they will keep until spring; but my Heliotropes are generally in all their glory when frost comes, and I could not bear to treat them so. They make fine window plants, and are generally very tractable in any situation, except a dark, cold one.

L. G.

CALIFORNIA VINE DISEASE.

The mysterious vine disease which has destroyed many California vineyards, is now pronounced by the parties specially engaged in investigating it, as a fungus, and the same parties, so says the *California Fruit Grower*, announce that the disease can be successfully combatted by means of the Bordeaux mixture employed to destroy the black rot, and which was described in this MAGAZINE, on page 122 of the present volume. The operations in California vineyards the present season will probably confirm more fully or disprove these statements.

HORTICULTURAL REPORT.

Those full, meaty reports of the Western New York Horticultural Society, in the March number of the MAGAZINE, were worth the subscription price to every one who raises fruit.

S. L. M.

PARIS LETTER.

It is a mistake to claim that the French love flowers more than the English, Germans or Americans. I speak of these nations not to make any comparison, but to show that each have the same love, but not the minute care manifested by the former, and it is evident not only in flower culture and fruit growing, but in everything they undertake in the usual routine of life ; all is done with care, and well done. Beneath the mocking, polite *bon jour* often said, from natural politeness, there is a personal satisfaction of having paid a respect to self in discharging a duty to others.

The English love flowers passionately, regardless of colors, and destroy effect in heaping them up in quantities, whether it be for dinner or drawing-room decoration, attaching little sentiment to the language of the flower, generally valuing it as having been the favorite of some queen, king, statesman or poet, and as for arrangement with artistic taste, it is rarely seen. I do not say this to provoke comment, but speak of facts as I have been compelled to see them in London, in the homes of Members of Parliament and even artists' homes ; there appears to be an utter lack, not only of sentiment, but in arrangement of colors. The absurd taste of tying up the ends of the tablecloth (although an old French custom of knotting them) with bright colored ribbons, and placing a moss-colored piece of plush in the center of the table, arraying in rows all the porcelain from Crown Derby to Saxony, and then piling up Roses in vases of some antique china, beneath a glaring gas light, and of different colors, too, is displeasing to the eye if not suggestive of a "war of the Roses." Before the dinner is over the flowers wilt, and are dubbed hot house impositions.

I was in London long enough to know that an English person will listen to any argument, and whether it be a floral one or one which reflects upon church or state, to know that you can not change an opinion, and that what was good enough for Queen BESS will do for Queen VICTORIA's subjects, so, pricked by the thorns, I consoled myself by watching the culture of all kinds of flowers which seemed at home in sunshine or fog, and

most especially Heartsease and Violets, reserving my comments for my readers. The English love simple flowers and large trees, heavy statuary and all that speaks of glory and renown.

LORD BEACONSFIELD'S statue was crowned with Primroses upon Primrose Day, April 18th, and all other flowers made way for Primroses. The general public seemed to show a mark of respect for the memory of the dead statesman in showering Primroses upon his statue. The flower girls were wild over their profits, and tantalized the newsboys, who did a less profitable business.

The sweetest Violets are the simple purple English ones, and Strawberries have a finer taste than even the cultivated small ones so esteemed in France.

An English home is tastefully decorated with flowers of every hue, and the prettiest of all window gardening one sees in dusky, smoky London.

In Germany flowers are cultivated from an actual love of them, and grow as well in a vegetable garden as in a regular flower bed ; they are planted regardless of colors, and are made into bouquets which are sometimes hideous with the imitation lace paper, which comes from Berlin. The arrangement of the bouquet is German all through, commencing with a Tuberose or Camellia at the top of the stick, going downward to Roses and buds, then the finishing touch of Geranium leaves. Their distaste to anything French prevents a French style in even the arrangement of flowers. The higher classes put much sentiment in their love of flowers and rarely cut a plant, fearing to destroy life, and thus, and rightly, too, they gladden the hearts of all passers by, who can peep in and see, perhaps, a favorite flower.

Phlegmatic as the Germans are, the simplicity and beauty of their home life with flowers, music and song, is to be envied if one could forget the method and rule manifested, and become deaf and insensible to the click of the knitting needles, for every maiden and matron knits stockings ; whether at home, even at the four o'clock coffee table, while discussing the merit of some novel which may be English, French or German, or in

a restaurant, out comes the stocking, and click, click go the needles; sometimes one can read almost the tenor of the thoughts, according to the motion or stabbing of the needles at certain turnings of the stockings.

Yet, too, I recall, with a loving remembrance, how my favorite flower (if I have any, for it is hard to select when they are all so beautiful), the Violet, found its way into my little work basket upon my work table and writing desk, and I had not to



FRENCH FLOWER BASKET.

ask who had remembered me, it was not expected. Affectionate remembrance was expressed in the little flowers and has not been forgotten, but treasured in memory's storehouse.

The Germans lack taste in arrangement of flowers in household decorations and in their gardens. The French, with their love of beauty and grace of touch, love flowers as an accessory to gratify that taste, being an object which aids to embellishment and assists them to carry out their execution in arrangement and disposition with a view to an original and artistic effect.

At Tours, which is the garden of France, I noticed, last week, that the lawns were covered with wild white Daisies, and I asked an old gardener if he saved seed of the flowers to have so prolific a result. Smilingly, he answered, perhaps some good fairy in the long ago might have done so; certainly I did not do

so. At the *Chateau de Vivier*, where I was stopping, in artists's fashion, *sans cérémonie*, I found one young member of the family intent upon the study of grafting Roses, and evening after evening, upon most familiar footing with the gardener, pouring over books, preparing ahead for the time of grafting when it should come, not trusting to an actual experience, determined with minute care to be theoretically instructed, demonstrating later this minuteness of which I have already spoken, the *le petit soin*, that the French give everything they do.

The manner of presenting sprays to the public notice, upon velvet boards, the tint of the velvet blending or contrasting with the flower, is worthy of note, and will cause the sale often of an ordinary flower by its proper presentation.

A dozen or two large yellow Roses laid upon a scarlet velvet board, or a dozen velvet red Roses tossed upon a gilt-colored velvet, exposed in a florist's window will cause the passer-by to first admire new points of beauty in the Rose, next the exquisite taste of the French florist, then the thought of the pleasure it may give some loved one; hence the expenditure of a few silver pieces for the nosegay, rather costly at present, but Roses are never cheap, always in season, of every color and kind. The success of flower culture and its great advancement is due the close care and study of educated botanists and flower growers, who give to the horticulturist reasons for past failures, and rules for future advancement and success, that with *le petit soin* and patience of the gardener, in a climate favorable to almost every flower, yields the harvest of golden reward.

Americans share with their English cousins the same great love of flowers, and if they only had time and could wait patiently for results would bring forward better specimens of flowers. But, alas, in large cities the flower growing is left to the florist, who may not grow a button of a Rose, but buy all to resell.

I recall, when living in a small city in the west, the arrival of VICK'S FLORAL GUIDE, and hunting out every new named seed, ordering, growing and having the delight of a treasure seeker by finding. I, too, had the success promised by regarding every instruction laid down within. There was no near florist, and

several German vegetable gardeners looked admiringly in upon my trim garden of Hyacinths, Tulips and all bulbous plants, followed later by smaller flowers, such as Pansies, Daisies, and great red Verbenas with clear white eyes, I having a fancy for red, and I realized then the joy a floral benefactor was to a young nation.

An American buys flowers for home and house decoration as a beautiful manner of expressing affection, but he has no time to plant and grub for floral caprices. I wish he knew the joy he lost, the moments of peace which would rest him from business cares, and in holding commune with nature, the lessons of watching and waiting he might learn and utilize by adapting to every day life.

The newest floral basket here has the long handle, which was common in Louis the Sixteenth's period, and it is made of an old straw hat, each braid sown to form eventually the shape, and bound around with a fancy cable cord, the bright cockatoos fastened upon the handle, a Parisian fancy, and the spray of blush Roses and primrose-yellow tinted ribbon attached to the other side—a tasteful way of ornamenting a handle. The basket, when filled with cultivated Thistles and rich, pink cross Roses and buds, is as pretty as any floral basket can ever be made. Hang it beneath the gas fixtures, just low enough to tempt the fingers of the little ones and yet escape them.

ADA LOFTUS.

Paris, France, April 20th, 1889.

THE EUCALYPTUS TREE.

The *California Fruit Grower* thinks that the Eucalyptus tree, which has been so generally planted through California, must be removed whenever near orchards, gardens or other valuable trees and plants. It is so greedy a feeder that it robs all other vegetation in its vicinity, and fills the ground with its roots. The roots are said to extend to a very great depth, having been found in the bottom of wells sixty-five and seventy feet deep. The shade and ornameptal qualities of the tree are of no great value, and "its peculiar habit of shedding its bark in strips is a very troublesome, uncleanly one, and litters up the neighborhood far and near." The tree is now being cut down very generally.

THE MITRE-WORT.

This is a little native plant of some interest when in bloom in the spring. Its botanical name is *Mitella diphylla*, meaning the two-leaved little mitre, or two-leaved Mitre-wort. The two leaves referred to are those on the flower stem, as may be seen in the engraving. The

of wide distribution in this country, ranging from Canada to North Carolina. It grows usually in woods or the borders of openings, mostly under shelter of trees and shrubs. We have had it in cultivation a number of years, fully exposed in the garden, and it proves well adapted to such culture. The flowers are small,

white, borne on tall, loose racemes, which stand about a foot high, rising direct from the base of the leaves.

For a hardy perennial that will take care of itself, it can be recommended. It is not showy, but a plant lover will find some interesting points in it.

LIQUID GRAPE.

Such is the name of an article for the preparation of which a company has been formed and located at Starkey, Yates county, in this State. It is claimed to be pure Grape juice, so prepared without fermentation that it will keep indefinitely, and in this condition may enter into commerce. The credit for the discovery of the manipulating process is claimed by Dr. J. H. McCARTY, of Clifton Springs, N. Y., who is, also, at the head of the business enterprise mentioned above. It is expected that the supply will favor a demand for the use of the liquid as a beverage, and that eventually a large amount of Grapes will be worked up in this manner. We shall see. As to the character of such



MITELLA DIPHYLLA.

general leaves of the plant are radical, cordate, hairy and resemble those of the *Tiarella cordifolia* to a great extent. The last named plant was described and an engraving of it given in our last volume, page 35. The two plants may be considered as companions, being closely related to each other; and also bearing several particular resemblances as well as having a general likeness. It is a plant

a beverage it may be said, without hesitation, that it is wholesome and nutritious. There is no more healthful fruit than the Grape. In the vintage season all persons engaged in the vineyards, and having free access to the fruit, are in a superior state of health, and increase in weight steadily from the commencement to the close. This statement is a fully established fact. It is not a surmise, but

has repeatedly been subjected to the test of the scale with a uniform result.

During the grape season the fruit can be used freely by every one to the greatest advantage to the system. Compared with Apples, Peaches and Oranges, the amount of available nutritive matter is largely in favor of Grapes, and the refuse skin and seeds is far less than in the skins, cores, pits and seeds of the other fruits named. Then, again, the Grape is put into the market in a condition almost perfect, whereas, in the case of both Peaches and Oranges, a satisfactory purchase from the retail dealer, by the consumer, is an exception, and disappointment the rule. Could we have ripe Grapes the year round, the consumption of other fruits would be greatly lessened, and there would be no need of this new beverage, but, since this cannot be, there is apparently an opportunity for "liquid Grape" to be received favorably, provided it can be placed before the public at a price sufficiently low to warrant its use.

In the preparation of this liquid we do not understand that any principle new to science has been discovered, but merely a successful application of well known methods. Of course, whatever method is successful in keeping Grape juice in an unfermented and unaltered condition, will also keep the juice of other fruits. Heating the juice, and then bottling it to exclude the air, after the manner of bottling fruit, will preserve it. Mustard seed and salicylic acid have been used to keep cider, but their use for this purpose is not satisfactory. Heating the juice and then excluding it from the air are probably the principal preventive processes connected with this new method.

BULBS FAIL TO BLOOM.

Why did my *Tigridia* fail to bloom the second year? Also, why did my *Amaryllis* and *Agapanthus* fail to bloom?

MRS. W. A. M.

It is impossible to answer questions like these with any exactness, when no information whatever is given of the treatment the plants have received. In asking questions of this character all the facts should be given as far as known. As for the *Tigridia*, we judge by the nature of the question, that the bulb was preserved through the first winter and again planted in the spring, and grew, but did not bloom; but why it did not

bloom can only be surmised. The most probable supposition is, that it became enfeebled by the conditions it was exposed to during the winter.

JONQUILS.

Will you please tell me what to do to Jonquils to make them behave themselves? Mine worry the life out of me by their caprice. Sometimes they bloom charmingly, and sometimes they won't. What shall I do to make them bloom, and why is it they act so badly.

DAME DURDEN.

Give them the best treatment you can, and take the result. We cannot control the weather in the open garden. What is said in this number in reference to *Narcissus* applies also to the Jonquils.

LAYERING ROSE BUSHES.

I have found the layering method one of the best for increasing the plants. My way is to take a shoot of young wood, make an incision in the bark of the under side, crack up gently without injury to the bark on the upper side and peg into a tin can previously prepared by having the bottom melted out, the can reversed with the loose lid for a bottom. A slot being cut in the top an inch and a half long, bent over, then filled with proper soil and sunk immediately under the shoot to be pegged down, the shoot entering the opening made in the side of the can. July is a good time for this. By fall the shoot will be well rooted and can then be cut loose from the parent plant, and lifted out in the can without disturbance. I rarely fail in this manner of propagating.

K.

WORMS AT THE DICENTRA.

Seven years ago I had a fine plant of Bleeding Heart, but it gradually declined, and not until too late did I discover the cause. Little worms were eating the roots. This spring, my aunt was taking off a piece of the same kind to plant for me, and I noticed that her plants were similarly affected, though they appeared all right at the top. I soaked the roots in tobacco tea before planting, and placed a few tobacco leaves about in the soil under and around the plants, and they seem to be doing well so far, though I shall watch them closely. Perhaps some one may suggest a better remedy. In my old home, in Pennsylvania, I never heard of this trouble, though it may be common in the east also. J. R. B., *Mo.*

A CITY LOT GARDEN.

I have a Jacqueminot Rose bush, about seven years old, which bore nine hundred and eighty-eight Roses last season by actual count; the month of June it had nine hundred and seventy-one, July fifteen, August two. The year before it bore six hundred, seventy-five coming in July.

Now for the treatment.* It has never had a shovelful of animal manure, using freely soot from the kitchen range, spent tea leaves and coffee grounds. It is a large bush, some of its branches being more than eight feet high. It frequently sends up a shoot in the spring, that grows nine feet before frost comes. Last year it sent up a shoot from the old wood, three feet high, which was tipped with eleven Roses. Last season, with all the Roses it bore, there was scarcely one imperfect flower, and it was remarkably free from the attack of insects.

Late in the season, every fall, the old wood is thinned out and the branches are shortened in. My aim is to have it grow high, in order to give plenty of Roses. I am liberal with my Roses, and during the season give a great many away. They are gathered off every day, and an account kept of the number. A Rose is never allowed to go to seed, by this means the Rose season is prolonged.

My garden is a very small one in a solid brick block, enclosed by a high fence on three sides and the house on the west side. The soil was originally clay, which, when dry would have to be cut up with the hatchet; but under treatment of the soot and coffee grounds it has become pliable, and is cultivated up to the main stem of the Rose bush and planted with flowers, annual and perennial, of small growth. On the shady side, next to the house, small Ferns are planted. They do remarkably well and aid in keeping the Rose bush moist during the flowering season, for in order to keep the Ferns nice they must be watered daily when there is not rain.

The soot is applied in the winter around the roots of the Rose bushes, and in the spring dug in. The snow and rain of the winter will help wash it down to the roots. Soot is apt to injure delicate growing plants, and for this reason it is best to apply it in the winter.

There are Moss Roses in the garden, which have received the same treatment.

Let not those similarly situated despair of having flowers on account of small gardens. This Rose bush of mine has had more Roses on it than a dozen would have with ordinary treatment. I had a Rose garden in Grand Haven, Michigan, which was the delight of all passers-by, but there never was a plant in it as prolific as this one.

One of my daughters has succeeded in transplanting a Trailing Arbutus, *Epigæa repens*. She took a hanging basket made of a cocoanut shell out to the Wisahickon Creek, two years ago, and filled it with the black, loamy soil the Arbutus grows in, and carefully transplanted an Arbutus into it with the moss it grew in. It kept alive and is still growing, and is now budded to bloom, having been kept in the house two winters. It is hanging in a window in the bath-room, which is heated by a flue. It may not be known to all lovers of the Arbutus that the buds are formed in the fall, in September, and they keep growing till they burst out in full bloom, in April. When we first discovered the buds, last fall, we thought we would have some Arbutus in a few weeks, and yet we had been familiar with the flowers for years, having seen large patches of them on wild land in Grand Haven, where they grow so plentifully one can gather baskets of them in a short time among the mosses, on the borders of swamps along the lake shore sand hills.

I have been experimenting with the Wallflower, and have succeeded in having it survive the winter out of doors. It will live here out in the open ground. I took a well rooted cutting, pulled up two bricks in the pavement next to the kitchen wall, put some garden soil in and transplanted the Wallflower there, and put the bricks back in their places. The Wallflower has stood all the storms and frosts of this winter, scarcely losing a leaf. The Wallflower does well in the house, and it is the first flower of spring with us, coming out in March. It flowers so early that when we set it out in the spring it is soon over. In order to prolong the flowering and have it at the time it would come naturally, I wished to preserve it out of doors, and have been entirely successful, to my great delight. If we have not the old walls of castles, as they have in old England, we have the

brick walls of houses which we may be able to make it grow against.

My La France Rose bush, planted last year, is doing well. The leaf buds are expanding. It bids fair to be as hardy a Rose as the Jacqueminot. It did not winter-kill in the least.

The *Lilium auratum*, also of last year's planting, did well. It had three beautiful Lilies the first season, which were the delight of every one that saw them.

A. B. C., Philadelphia, Pa.

APPLE TREE FREAKS.

The Crab trees that wished to become Rose bushes, as set forth in the MAGAZINE for May, are not the only ones of their race having the same ambition. Three or four years ago, two Apple trees on my place brought forth a few large double flowers, one in a place in the late summer, in August, I think, though it might have been in early September, of great size compared to the ordinary blossoms, and very double and sweet. One tree was a Yellow Juneating, the other a nondescript winter sweet Apple, perhaps a seedling. Both bloomed at the same time, which made me imagine the weather the exciting cause, there being warm rains almost every day. The trees, if pruned at all that year, were pruned in early spring.

As another instance of abnormal flowers, I will mention a young cane of a large double, crimson Rose, known to me only as "Cabbage Rose," that produced a pair of petals at the base of each leaf the whole length of its stem, as large as the largest outside petals of the Rose, as nicely rounded and perfect in tint and texture. These also came out in a wet spell. I pressed the shoot and framed it under glass, but it finally faded so much that I threw it away.

E. S. GILBERT.

SUCCESSFUL FLOWER GROWING.

I have been a reader of the MAGAZINE for years, and enjoy it very much. I am a lover of flowers. I have a porch enclosed with glass in which I keep plants. I have not been without bloom of some kind, and sometimes a good deal, for the last seven years. I have two Lilies which gave ten blooms during the winter. The stem on which one of them was borne measured a little less than four feet in

length. There were four blossoms at one time.

What interests me most at this time is my little White Pet Rose. I procured it two years ago. It bloomed both summers, we thought, very nicely. During the winter it sent up a shoot which had fifty-eight buds all in good condition. It now has twenty-one full blown Roses, and by to-morrow it will have over thirty. It is the greatest sight I have ever seen of the kind.

MRS. J. H. B., Canton, Ohio.

PLANT NOTES.

Those who do not care to cultivate the tender species of Cactus can have *Opuntia vulgaris* in their gardens. The best way to grow this plant is to make a little mound of sandy soil, intermixing it with pretty stones, and set the plant on the top, where, without care, it will flourish and display its handsome golden flowers in profusion all the summer. This plant belongs to the Prickly Pear section, of which there are more than one hundred and fifty species. They are mostly natives of Mexico, California, Brazil and Peru; a few are found growing in the United States, among them *O. vulgaris*, which is found abundantly in New York and some of the Eastern States. Some of the *Opuntias* attain a height of ten to twenty feet, others are procumbent. All have sharp spines.

Opuntia tuna is the species from which cochineal is obtained. The little red insect feeds on the juice. From the insect is obtained the red coloring matter used for coloring candies. The plant bears a pear-shaped, edible fruit. The natives also make fancy baskets and other ornamental articles from the old wood.

Opuntia coccinellifera is another species largely cultivated for the cochineal insect. A plantation of fifty to sixty thousand plants is not uncommon. It is from the female that the best dye is obtained. Three times a year the insects are brushed off and dried in ovens for the market. The annual produce amounts to hundreds of tons, and the usual price is about \$2,000 per ton.

What a pity the different species of the persistent aphid could not be utilized for commercial purposes. They multiply wonderfully, and how they originate is, to most people, a mystery. Cleanse

your plant thoroughly to-day, and it will only be a few days later when you will find them covering the leaves again. Some plant of which they are specially fond no sooner shows itself above ground than it is loaded with this pest. Particular is this so with the Crocus when cultivated in pots. I have had foliage not more than half an inch in height literally covered with them, and after being wholly removed the same condition of things would be found in a day or two. Where do they come from?

MOLUCCA BALM, OR SHELL FLOWER.—I have some seeds coming up of this rarely cultivated annual, of which our floricultural writers have little to say, and rarely is it catalogued by florists. The only description and history of it I have been able to find is given in volume 1, pages 309 and 367 of VICK'S ILLUSTRATED MAGAZINE, and for the purpose of calling attention to this curious flower I will copy from that account, which, after the lapse of ten years, must be new to most readers of the MAGAZINE:

"The plant is a native of Syria, but seed were carried to England three hundred years ago by the botanist to King JAMES I, but were lost and re-introduced a hundred or more years afterward, and was almost lost again. It is a strong annual, growing from two to three feet in height, starting from the ground with a single strong stem, branching at about six inches from the ground. At this point it throws up a dozen or more strong, curved arms, usually two feet in length, and these are surrounded with flowers, scarcely leaving room for a single leaf. Indeed, but few leaves appear, perhaps not more than half a dozen on each of the branches. The flowers are very small, pink and white, but surrounded with a large shell-like calyx. Underneath each calyx is a singular whorl of spines. The plant has a strong smell of balm. It is a very curious plant and has attracted attention wherever shown."

HEDYSARUM GYRANS.—This is another rare plant which is remarkable for the property it possesses of spontaneously "moving its leaves from no apparent cause," says one writer. "Without being touched or excited by heat, light, wind or rain, sometimes a whole leaf, sometimes a single leaflet, oscillates or gyrates,

continuing to move for an indefinite time, and ceasing without a known cause." MARTIN, however, in his *Natural History*, says the movements are excited solely by the sun's rays. That "when the sun shines the leaves move briskly in every direction; their general motion is, however, upward and downward, but they not unfrequently turn almost round, and then their foot-stalks are evidently twisted. These motions go on incessantly as long as the heat of the sun continues, but they cease during the night and when the weather is cloudy or cold."

PHYSIANTHUS, OR CRUEL PLANT.—The name is derived from *physa*, a bladder, and *anthos*, a flower, alluding to the corolla being inflated at the base. P. albens has been called the Cruel Plant, because its flower is so formed as to entrap insects. It is thus described by Professor GEORGE THURBER:

"The anthers are so placed that their spreading cells form a series of notches in a ring around the pistil. The insect in putting its proboscis down for the honey, must pass it into one of these notches, and in attempting to withdraw it the end is sure to get caught in a notch, boot-jack fashion, as it were, and the more the insect pulls the more its trunk is drawn toward the point of the notch. Thus caught the insect starves to death." This plant is a very rapid climber, sometimes growing twenty feet in a summer. The flowers are borne in axillary clusters very abundantly; they are pure white and very fragrant. The seed-vessels are very handsome, oval form. The seeds are enveloped in a quantity of fine, silky substance. A native of Brazil and Buenos Ayres. It is not hardy.

LUFFA ACUTANGULA, better known as Dish-cloth Gourd, or Vegetable Sponge. It seems that this curious climber not only affords dish-cloths and sponges, but, judging from the engraving before us, representing a pretty, smiling lass with a "fascinator" on her head, which is nothing more nor less than this same dish-cloth with its cords and lace work, we think that the usefulness of this Gourd covers a larger territory than we had been wont to suppose. Now we can raise our own dish-cloths, sponges, bonnets, holders to use about the stove, holders for dried grasses, holders for brooms and brushes, and for table mats, etc. In the West

Indies a small basket was made from this same wonderful fabric and sent to Queen VICTORIA as a jubilee present, and was deemed worthy of being placed on exhibition in St. James' palace. Bleach them, color them, and with ingenuity fashion them for usefulness or ornament. For a trifling sum expended for seeds, you can raise enough plants to furnish all of your neighborhood with gourds, from the interior of which they can manufacture articles for the sink, the bath, the toilet, the parlor or the Christmas tree. The fact must not be overlooked, however, that this is also a highly ornamental climber for the garden, producing large, deeply cleft leaves and golden yellow flowers, about the size of a silver dollar. The fruit is produced freely, varying in size from a large Cucumber to three feet in length and eight or ten feet in circumference. The plants cover and adorn the trunks of the Palm trees in India. Now, I will tell you something more, confidentially, which the florists omit—it is—well, not very fragrant, but odorous.

MARY D. WELLCOME.

TUBEROSES IN WINTER.

There is but little trouble in preparing Tuberoses to bloom in early winter, a time when their beauty and fragrance is greatly enhanced by the scarcity of flowers. At that season a single bud of this sweet flower with a little green is a treasure for the hair or dress. The best way to manage is to pot the bulbs the last of July or the first of August, and sink the pots in the ground below the rims. In this condition they will grow rapidly. If the weather should be dry, water must be given as it is needed. Use a fresh, light soil for potting. A little soil taken just under the sod of a pasture ground or meadow, a small quantity of sand, and some old dry manure from the cattle yard broken up fine, all mixed well together, will make a proper soil for the bulbs. In potting them cut away from the base of the bulbs all the old dry part, that is, the old root-stock. By so doing the roots which start from the base of the bulbs can push out quicker. In trimming the bulb take away, also, all the little bulblets which appear, as these, if allowed to grow, take away the strength of the plant. Soon after the first of September, or when the heat of the season begins to

fail, remove the pots to the house and continue the cultivation there.

AN "EASTER LILY" A CALLA.

I have a beautiful Easter Lily with one flower and and two buds. Will you please tell me how to take care of it when done blooming, so as to have flowers next Easter, also how to treat a small plant that has come up beside the old one? I carefully read the MAGAZINE for information.

A. M. F., Doylestown, Pa.

From the nature of the above statement, it is concluded that the "Easter Lily," so called, is the Calla, or Richardia Cethiopica. It being so, the treatment is either to allow the plant to dry off and remain dry in the pot until the last of August, or to turn the ball out of the pot into the garden border for the summer. About the first of September lift it and repot it after having removed the small plant from the side.

It is scarcely necessary to say that the term, Easter Lily, which formerly was sometimes applied to *Lilium candidum*, and later included also *L. longiflorum*, is now, apparently by common consent, applied very generally to the Bermuda form, *L. Harrisii*.

SUMMER TREATMENT OF BULBS.

Will you please inform me how to treat bulbs, the Bermuda Lily, Chinese Lily, Freesias, and such like bulbs that have blossomed in the house in crocks. What to do with the bulbs is what we would like to know, so as to have them fit for another season.

T. F. F.

Sufficient directions in regard to Lilies and Narcissus will be found on other pages of this department.

As for Freesias, dry off the pots, allowing the bulbs to remain in them without removing the soil. In this way keep them in a dry state until about the first of August, when they can be repotted in fresh rich soil and started to grow.

TEXAS GARDEN IN SPRING.

Phlox Drummondii and Petunias are now, April 2d, in full bloom here. The Oleanders have fared better the past winter than for several years, and are now putting forth flowers, with a prospect of better growth and more bloom than at any time since 1884. A Ten-Weeks Stock, planted a year ago, is now about eighteen inches high, and a perfect mass of flowers. Vegetables of all kinds are plenty and have been for some weeks past.

R. B. S., Galveston, Texas.

JUNE WORK.

Newly planted trees should now be pushing their growth, and if they are not they should receive attention. The commonest fault of inexperienced persons in setting young trees is to leave on the whole growth of the top, or if it is at all reduced, merely the tips of the branches are removed. The result often is, in this case, that in very dry and warm weather, some very small leaves are produced on all the branches, and in that state the tree remains, making no vigorous growth. The trouble is that the roots are called upon to support more foliage than they can supply with sap. Instead of a few shoots making a growth the whole top is just kept alive. A tree in this condition should have its top all cut away, leaving only a few inches of the main branches remaining; it is then possible for some strong growth to start.

Established trees of a year's growth, or more, can frequently be assisted at this season to form symmetrical, or proper heads by pinching in unnecessary shoots, or such as are making an excessive growth in one direction at the expense of others. These remarks apply equally as well to shrubs as trees.

Many persons clip lawns too frequently and too closely. This should be especially avoided in a very dry time. Close and frequent cutting enfeebles the plants, and the effect is very visible in a hot season. If supplied with plenty of water the grass can support it.

All bedding out will be finished early in the month, and then the plants should be kept growing by frequent stirring of the soil and the necessary supply of water.

In the general flower garden, hoeing and weeding and keeping things neat will be the main features. For plants that need support, provide it in time.

In the vegetable garden, successive plantings can be made of Corn, Beans, Turnips, Lettuce, Radish, &c. Lima Beans can yet be planted. Such crops as Onions, Beets, and Carrots should not be allowed to go long without thinning out. The sooner this work is done after the plants are well up the better.

To get good fruit on Cucumber, Squash and Melon vines the soil must be rich, and the plants receive good cultivation, so as to secure a strong and steady growth of vines. A planting of Celery

can be made this month, and be followed by another in July. The main crops of Cabbage and Cauliflower will be set this month. With proper care there need be but little loss in transplanting. Do not let the roots become dry in the process but keep them puddled in a thin mud.

New plantations of Strawberries should be kept clear of weeds, and the surface of the ground be kept open by frequent hoeing. A bed of Strawberries from which the fruit has been taken, if intended to remain another season, should then be thoroughly cleared of weeds. If it is not to bear again it should not be allowed to bear a crop of weeds, but be spaded under at once, and the ground sowed to Turnips or some other late crop.

Cultivation of Raspberries should be discontinued while they are in fruit, as it is almost impossible to work among them without breaking off the brittle branches laden with fruit. When the young Raspberry canes get up about thirty inches high cut off from four to six inches from the top, leaving them about two feet, this will make them branch out freely, thus enabling them to carry a full crop low down, on firm, erect canes. Blackberries in the same manner can be pruned to about three or three and a half feet.

Jarring the Plum trees early in the morning for the first two weeks after the fruit has set, with a sheet spread under the tree is a sure way of catching the curculio and preventing their injuries. The method of preventing their attacks by spraying with arsenical solutions will be more practiced this season and its results probably better known hereafter. Good results have been obtained on Pears by means of spraying them in the same manner, where the curculio injures the young Pears, as it does in many places. The Plum leaves are said to be more easily affected by arsenic than those of the Apple or Pear, and a mixture of one pound of purple to three hundred gallons of water is, perhaps, strong enough. One pound of purple or green to two hundred gallons of water is the proportion for Apple trees. Fallen fruits should be gathered and destroyed. In the vineyards, stirring the soil and tying up the young shoots is the principal work. Good cultivation in the vineyard shows its effects at once in the growth of the new wood and the size of the fruit.

OUR YOUNG PEOPLE.

HOME AGAIN.*

"Philip, come in here, please."

Mollie Steele held the door open as she passed from the breakfast room, until her brother had done wondering over the large Pineapple growing in his mother's window garden and had entered in, when she closed and locked it against Rollie, who was laughingly struggling to enter also.

("Secrets!" whispered Charlie to Kate, looking after them with a wink and a nod, as he went off to his morning's duties well satisfied, since he and Kate had their own share of delectable privacies.)

"Sit down, Phil; we must have a little talk," said Mollie. "I don't know how it is with you, but my two years' absence at school has so changed me that I don't know myself for the same irresponsible girl whom you hustled off—just before we left home—to a camping-out picnic during the absence of our parents, you remember, who were not so far away as we supposed."

"Yes, indeed, I remember. What a jolly, good time we had; the whole affair growing out of your having burned your bread, and being so forlorn afterward because your bottled dynamite in the cellar had failed to blow the house up. Ha, ha."

"That's your way of telling it. What I want to know now, is, whether you can recall how young and bright father and mother looked when they surprised us at camp next day, after their long rest and change, you know, from the routine of home life. Can you?"

"Yes, I can recall just how they looked to me then, for it did my eyes good. But now —."

"Yes, you hate to say it—now they look six or eight years older than they did then."

"I know they do, and am troubled about it—all the more, too, because Charlie will so soon be off to school now, and I hate to leave father with neither of his

boys at home. Besides, you didn't know that Professor Drexell gave us fellows a parting lecture, similar, I judge from your report, to the one his sister gave you girls who were going home to stay. He said that a thousand years of time would fail to dispel the sense of remorse that haunts him in consequence of his youthful selfishness having blinded him to the fact, until too late, that his parents' lives were being shortened by long self-denial of needed rest and comforts, in order that himself and sister might become college graduates—keeping up, the while, money supplies that they clamored for as a necessity."

"His sister told us of that; what else did he say? I am anxious to know, because there was a rumor at the college that their parents committed suicide—first the mother, and while they were worrying and excited about that, then the father—one funeral for both."

"Horrors! I did not hear that. But I remember, the Professor went on and said this:

"And that was not all, boys. When we returned home we broke their hearts by letting them feel that we were ashamed of the plain home and of the plain way of living—yes, and ashamed of them—of their lack of culture. Boys, after all they had done for us this broke their hearts. We did not realize how it would hurt them till too late.' Here the Professor broke down and could not talk. When he resumed, he said:

"Now, if any of you are returning to parents who have missed in early life (from no fault of their own, remember), the privileges they have secured to you, show them your gratitude in return. Don't, for a moment, think you've only had your *rights*. Children have no rights that narrow down the lives of parents and make of them drudges. God never intended it so. If, through great love for you, they have made sacrifices involving injustice to themselves, try to make them glad for what they've done—

* A chapter of past history in the Steele family may be found in this MAGAZINE for July, 1887, page 220.

not sorry. Make them proud of you. Try to be so manly that your father, standing beside you, will instinctively carry his own head a little higher, step a little younger, brush his hat and shoes oftener, and smile to himself as he thinks how the 'Squire and the Judge will greet with respect his educated son.' But I can't repeat all he said, Mollie, though his words were so good and so full of feeling that we could not forget them had we tried. I'm glad Charlie is going to be under him."

"And for the same reason," exclaimed Mollie, "I'm glad Katie is to be with Miss Drexell. She and her brother surely have a mission in that direction. In talking to us girls, Miss Drexell said that, although her words might not apply to ourselves, yet, that they do apply to all children in families of limited means, who are able to accomplish work that would lessen the labors and cares of *overtaxed* parents. If such parents, she said, are so anxious to give their children special advantages that they assume double burdens to secure that end, the children should not consider that what they gain in that way is something they had any right to claim; but, instead, as special favors to be always lovingly and gratefully remembered. Finally, she read us a poem about flowers held in confined hands, that had been too busy and too weary with hard work for others, to hold flowers before."

"Of course, all of this made cousin Mab and me notice, more particularly than perhaps we might otherwise have done, how much older and worn our mothers look since our return. And we've made our plans and are going to have things different. But you—you can't leave father now; I fear he'd have no heart left for anything."

"No, I can't leave him until I can serve him better by finding an opening in business that will enable me to put a strong, good workman in my place here, until the expense of educating the others is ended."

"But no workman can fill your place here. Mother says that after your long absence, father needs your presence—needs yourself; that he wants to feel you near him, indoors and out—to see you at table, see you when he lifts his eyes from his evening paper; wants to enjoy your

companionship, get acquainted with you as a man, you are no longer a boy to him, don't you see? He can spare you better after a while, mother says, than now, when his heart is hungry for his son—for his old interest in the home place; yes, and for some of his rollicking and joking, as in days past. And, Philip, couldn't I see that, when she was talking like that in father's behalf, she was speaking for herself, too? She can't spare you, either; and their half-formed fear that you wish to leave them so soon hurts away in deep—hurts to the quick."

"O, well, I shall not leave at present if that's the way they feel. Though, for a time before I left for school, I had resolved never to return to country life. I had taken a grand disgust to being classed with men who, as individuals, were regularly shown up by the prints in anecdote or incident to their discredit, and dubbed 'old Hay-seed,' and whose hands were never mentioned without the word 'horny' being prefixed. It made me mad. Now I'm so thoroughly independent of anything of the kind, that when a sharper in town, the other day, pretended to know my father, I told him he must be mistaken, for I was the son of old Farmer Hay-seed, out on Goose Creek. Ha, ha, ha. You ought to have seen how he looked as he slunk away."

"I must say that was a good one. I glory in your independence; and yet, cousin Mab and I have felt indignant that certain story writers think it proper to prefix a farmer's business in life as a handle to his name. These same authors never write *Tailor Jones*, *Carpenter Hale*, *Saddler Blake*, *Grocer Smith*, and why *Farmer Steele*? We don't like it. But I can see now that your way is best—to rise above it and not care. But look, Phil, there comes Mab, this minute, so I'm done with you now. Many thanks for your promise not to leave home," and out she rushed to greet Mab. That young girl had no words of greeting, but burst out in an undertone:

"Don't you think I can do nothing with her—no arguments nor persuasives are of the least avail. I already had father's consent for the trip and got him to help me. But she only smiled all the more, and repeated again that if I wish her to be happy I'll allow her to remain

at home and enjoy the society of her daughter once more, after the long separation. It was of no use that I urged that uncle and auntie Steele could not half enjoy their journey and visit without them for company. She was too shrewd for me—said she'd believe they were going to leave home just now, when she heard them say so; and then pinched my cheek, and said she wished I was small enough (for one little minute) to be tumbled into her lap and touzled and shaken and kissed to her heart's content. I decided, then and there, that for her, the greatest happiness to be gotten out of our plans is the knowledge that they were contrived for her comfort and pleasure. Just to know that is enough. Father never suspected that the journey and visit were designed as a nice rest for him also, bless his heart. I declare, Mollie, I believe some mothers live so completely in their children and children's interests that they cannot enjoy life outside of them. Surely, we ought to make large returns." Then, in silence, the cousins drew their arms around each other, and sought the Grape arbor for shaded seats.

"Since our last talk," began Mollie, "I've suspected that our mothers might feel as though they were being banished if sent away from home now, and my hints on the subject have confirmed the impression. So I've contrived something else. You see it is a change that is needed—something different; a change to give variety to the every day routine, a sort of vacation in the usual round of duties this hot, sluggish weather, and if it has got to be developed at home, I propose that we maneuver to unite the two families into one; first, at our house for two weeks and then at yours. That will condense the culinary department—instead of six meals per day only three being needed for us all. In both homes our parents must consider themselves as guests. If thought necessary, Phil and Charlie can sleep in the vacant home, attend to things in the morning, and then gallop off for breakfast. When our schoolmates visit us, we can have a picnic, fishing, etc. Does this project sound crazy to you?"

"No, it does not; and by that arrangement the tenant on each place can be looked after, as usual, and the wives or

daughters are always glad to help us in doors."

"Yes, and Phil will be our right hand man; let's look him up and initiate him."

A week after this talk, any one sauntering through the Steele homestead might have heard snatches of conversation, like the following:

"Yes, Mollie says you may take care of your own rooms, since you insist upon it. But at ten you're to be ready for the phaeton. You'll find a packed basket in it for the sick woman."

"Rollie says he'd rather go with father and uncle to the Fine Stock Sale."

"Good bye. It's on Thursday the minister's wife will expect you. Then you're to fix on the day they're to spend here."

"I'll have our hammocks brought here before then."

"Yes, Mollie, 'Daisy is all right; so is the ice cream freezer."

"No, Drusy, never change the water on Peas, but for Beets and String Beans you must."

"We're done measuring up our share of the early Potatoes. Phil wants to know if they're to go in the back cellar."

"The Onions can't lie in a heap, even in the barn; they'll gather dampness and sprout."

"No, Katie, you've done enough. Now go and rest, with your book in the hammock," "O, well, then crochet, or whatever you like."

"Mab, you've arranged the flowers lovely. The way you can make use of that delicate wild vine, with its tremulous pendants, is quite an art."

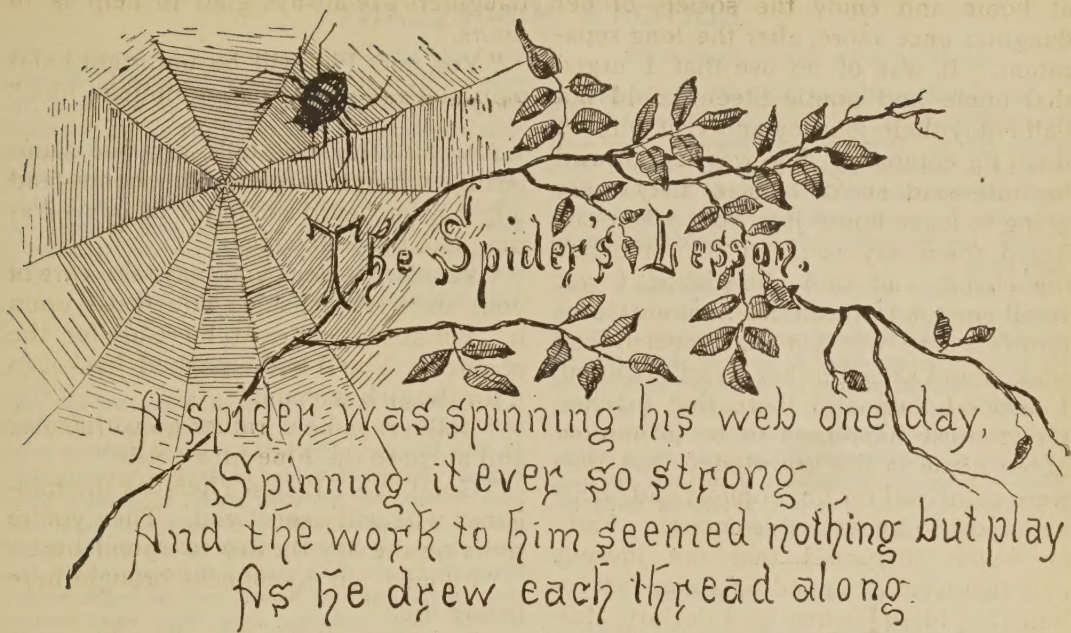
"Think up some other excuse for driving to town; Phil is to see to table supplies, if we oversee the cooking."

"I'm glad you don't let them know what their dinners are to be like. Fear I can't manage my mother when I get home, she's so —."

"I'll help you. No, the eggs haven't been gathered."

And now the intending listener will have to leave these folks to themselves and guess at the rest of their doings and sayings, remembering, always, that such wholesome, happy family life as here portrayed will make the kind of men and women that are to be the glory and strength of the future Republic.

MARIA BARRETT BUTLER.



The Spider's Lesson.

A spider was spinning his web one day,
Spinning it ever so strong
And the work to him seemed nothing but play
As he drew each thread along.

At last he had made a circle complete,
A fabric dainty as lace,
Each part of the work exquisitely neat,
And every strand in its place.

He wearied not once, no laggard was he,
And soon he was well repaid,
A prettier web there never could be
Than this small weaver had made.

Thus a good example to all he sets
Of cheerfulness, patience and skill,
The one who over his work always frets
Never can work with a will.

M. E. B.

EDITOR'S MISCELLANY.

AMERICAN SEED TRADE ASSOCIATION.

The annual meeting of this body will be held in Washington, D. C., on the second Tuesday of this month (June). Hotel accommodations have been secured at reduced rates. Reduced railroad fares from all points east of the Mississippi have also been arranged for, the particulars of which can be learned through the Secretary, Albert McCullough, Cincinnati, Ohio.

It is earnestly desired by the officers that a large attendance be had at this time. Besides the many attractions of the national capital, which of itself will be quite an inducement to many of the members, matters of special interest to the entire trade will be brought before the meeting for action. There are, also, amendments to the constitution to be acted on, and interesting addresses will be made which will be followed by general discussion, so that this meeting, it is believed, will be of more vital interest to the association than any had heretofore.

BLOOMING OF TREES AND SHRUBS.

The dates of blooming of some trees and shrubs, as noticed the present spring, are here given :

April 19, *Cornus mascula*.

" 23, *Forsythia Fortunei*, *F. viridissima* and *F. suspensa*.

May 2, *Amelanchier Canadensis*.

" 3, *Magnolia conspicua*.

" 4, *Prunus Americana* and *P. tomentosa*.

" 5, Peaches, Plums and Cherries.

" 7, *Prunus triloba*, *Amelanchier ovalis*, *Spiraea Thunbergii*, Japan Quince, *Magnolia speciosa* and *M. Lenne*.

May 9, Pears and Apples in full bloom.

" 10, *Cercis Canadensis* and *Spiraea prunifolia*.

" 11, Horse Chestnut, in favored localities, opening a few blossoms.

May 16, Lilac, *Halesia* or Silver Bell, and Tree Honeysuckles in bloom.

May 18, Mountain Ash and *Viburnum*. Horse Chestnut in full bloom.

CONVENTION OF NURSERYMEN.

The Fourteenth Annual Meeting of the American Association of Nurserymen will begin at Chicago, Illinois, June 5th, 1889. Railway tickets for the round trip, from any part of the United States and Canada, may be secured by any person, whether a nurseryman or not, at a rate of one-third fare for the return trip; a great opportunity for all who would like to visit the great metropolis of the west. Tickets are good for any train, going or returning; no crowd, no jam. Reduced rates are also secured at the Grand Pacific Hotel, Chicago, the headquarters of the society.

This will be a notable gathering of distinguished nurserymen and horticulturists, and an interesting and instructive programme is offered. For circular giving full particulars about securing reduced railroad fare, programme, etc., apply to Charles A. Green, Secretary, Rochester, N. Y.

ALDEN'S MANIFOLD CYCLOPEDIA.

Alden's Manifold Cyclopedia, volume XII, is now issued, and all the strong commendations which have been bestowed upon previous volumes is in equal measure due to this. Open it where you will,

the book offers rich treasures of knowledge. The volume takes the work from Dominis to Electric Clock. The work is a Dictionary as well as a Cyclopedia—a fact which adds greatly to its other merits. It seems almost incredible that such a work can be sold for 50 cents a volume, in good cloth binding, or 65 cents in half morocco, with 10 cents additional for postage, but that is all that is asked. A specimen volume may be ordered and returned if not satisfactory. John B. Alden, Publisher, New York, Chicago, San Francisco and Toronto.

LITERARY NOTE.

D. C. Heath & Co., of Boston, Mass., publish *Nature Readers' Sea-side and Way-side*. By Julia McNair Wright. This is the title of a series of three Primary Readers intended to awaken in young children a taste for scientific study, to develop their powers of attention, and to encourage thought and observation, by directing their minds to the living things that meet their eyes on the road-side, at the shore, and about their homes, such as crabs, wasps, spiders, bees, mollusks, ants, flies, earth-worms, beetles, barnacles, star fish, dragon flies, plant life, grasshoppers, butterflies and birds. The books contain numerous illustrations especially prepared for this series. These books are worthy of the attention of teachers and parents.

THE FRUIT PROSPECT.

The promise of a great fruit crop was never better at this season of the year—and this applies to most parts of the country. In this region the blossoms of Cherry, Plum and Peach are falling at this date, May 18; those of the Apple and Pear will last but a few days longer. How much of the young fruit will be retained cannot now be foreseen, but the season of blooming has been exceptionally fine, and appearances indicate a great crop of fruit of all kinds. If the trees should set as much as there is at present a prospect of it would be wise in fruit growers to give special attention to thinning out a portion for the benefit of the rest. No tree can bear to its full capacity and yield the highest quality of fruit.

A GOOD BERRY BOX.

One of the best things in the way of a berry basket we have seen is made by the Detroit Paper Novelty Company. The basket is made of water-proof manilla tag-board, and is furnished with a cover of the same material, and a bail of light copper wire. The baskets are packed flat for shipment and take up but little room. They are made both close and ventilated. The basket is very neat, and holds an honest quart, and is supplied at a low rate. A neat, light crate is also supplied for shipping, altogether making the handsomest berry package sent to market.

RUST ON BLACKBERRY BUSHES.

The only practical treatment known at present of Blackberry and Raspberry plantations where the foliage is attacked with the red rust is to remove the diseased canes and burn them, or if the fungus is very prevalent to dig out the plants entirely and destroy them. Do not replant on the same ground.